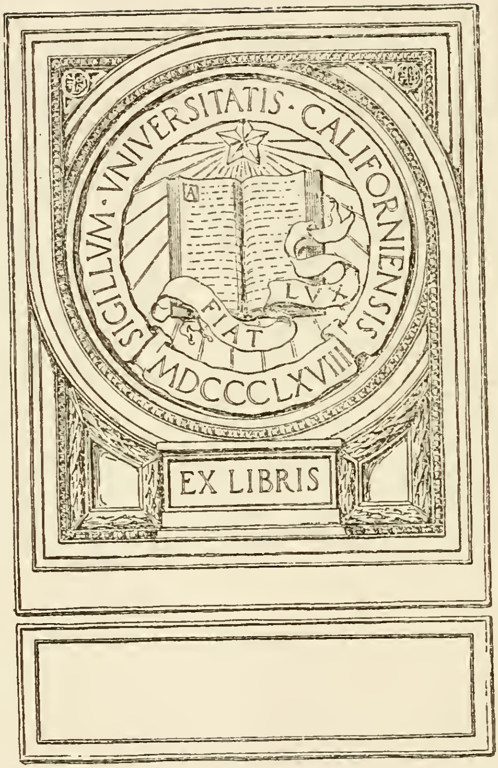
PROBLEMS AND EXERCISES IN ACCOUNTING

PATON AND STEVENSON

GEORGE WAHR, Publisher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PROBLEMS AND EXERCISES IN ACCOUNTING

PREPARED BY

WILLIAM A. PATON, PH. D.
Professor of Accounting in the University of Michigan

AND

RUSSELL A. STEVENSON, PH. D.
Professor of Accounting in the University of Cincinnati

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PREFACE

This book has been prepared to accompany the authors' *Principles of Accounting*.[1] An arrangement of the material in chapters and sections corresponding to that followed in the other textbook has accordingly been adopted. It is largely in view of this specific purpose, likewise, that many of these problems and exercises, especially in the first few chapters, have been constructed with little regard for the details of business and accounting practice. An essentially artificial problem, it is believed, is often a better means of developing the beginning student's knowledge of a particular principle or procedure than a concrete case. The teacher must remember that the high degree of interdependence existing among the various parts of the accounting mechanism makes the subject, at best, one of peculiar difficulty. To make initial progress in this situation it is necessary that each element be taken more or less completely from its setting and presented, detached, for the student's attention. For this purpose, evidently, a cross-section of actual business practice is likely to involve far too many considerations; as the financial history of even the very small business has in it all of the important accounting elements. Thus "practical" problems, although they may be very appropriately used as C. P. A. examination questions, are commonly quite unsuitable for classroom purposes in the fundamental course.

On the other hand, there is no reason why the "made-to-order" problem need be seriously inconsistent with the underlying aspects of practice. Indeed, the semblance of reality should always be preserved as long as sound pedagogy is not thereby sacrificed. Further, as the student's knowledge of the subject grows, more realistic and complex problems may well be intro-

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[1]Published by the Macmillan Company, New York City.

duced—problems involving many of the principles and usages with which he is already familiar as well as the specific matter in hand. In the later chapters of this book, accordingly, quite a number of exercises are found which have been adapted from concrete situations.

In a few cases, the instructor will notice, a question or problem given is slightly anticipative of material which has not been reached at the corresponding point in the "Principles." Such exercises have been inserted deliberately. At times, it is believed, the student can be stimulated to further effort by being confronted with a query or a problem which, as far as the ground he has covered explicitly is concerned, is just a little out of his reach. In general, however, the sequence of material in the two books is identical.

It is not intended to imply that this book furnishes all of the material needed for the laboratory work which should accompany the course in principles. The amount and character of the laboratory material used in the university accounting course does and should vary widely, and depends in any case upon the purposes of the course, the training and ability of the students, the character of the collateral work in business, and many other factors. The use of long "sets" is favored by many instructors; and there is much to be said for this plan provided satisfactory material is available. Undoubtedly considerable drill is required to develop clerical efficiency in the student and to emphasize adequately the important principles of bookkeeping. Long laboratory assignments are likewise useful as a means of "diluting" the more difficult parts of the subject, and thus enabling the student to "get his bearings" and thoroughly digest his text material. But most of the practice sets in use, unfortunately, consist in long monotonous series of routine transactions, and furnish difficulties which are largely arithmetical. Working such sets, rather than developing the analytical powers of the college student, is likely to result in at least partial mental paralysis and a feeling of disgust for the subject. It is due in part no doubt to this unsatisfactory character of the available laboratory sets, and the difficulty of prepar-

ing long exercises which are satisfactory, that has led quite a number of instructors to rely solely upon short exercises and problems for practice work. Certain it is that reasonably successful courses in accounting principles are being given in several universities which do not include any laboratory work in the conventional sense.

A convenient folio of blank forms has been arranged which may be used by the student in working these problems and exercises. These forms are designated by the letters A, B, C, etc. Unless a reference to a special form is made in a particular problem it is understood that Form A is to be used. These folios may be secured from the publisher.

W. A. P.
R. A. S.

September 1, 1921.

PROBLEMS AND EXERCISES IN ACCOUNTING

I

THE NATURE AND SCOPE OF ACCOUNTING

1.

Formulate a definition of accounting. What is the unit of organization with which accounting deals?

2.

"The practice of accounting involves three phases: (1) the organization and construction of a system of records, accounts, and procedures; (2) the systematic recording of business transactions or happenings—bookkeeping; (3) the analysis, reclassification, interpretation of these recorded data, supplemented by a process of valuation, in terms of financial statements and other reports designed to serve the needs of the managers, investors, and others interested."

Restate the above in your own words, explaining definitely, with illustrations, what you assume to be the nature of the work in each of the three branches of accounting mentioned.

The Business Enterprise

3.

Name and contrast briefly the three principal types of private business enterprises found in the United States.

4.

Whose interests predominate in the business enterprise? Explain.

5.

State several situations outside the business enterprise proper which may require something in the nature of accounting.

The Need for Accounting Analysis

6.

State the important general characteristics of the modern industrial situation which emphasize the need for an accounting analysis of the business process.

7.

"The development of credit agencies and associations, and trade and industrial organizations, has been of some influence in fostering the extension of systematic and standardized accounting."

Explain why this might be expected to be the case.

8.

"The advent of income and excess profits taxation has greatly intensified the interest in accounting."

Why is the need for sound accounting magnified by the imposition of these taxes?

9.

Give several illustrations of the interest of the public in the observance of rational accounting principles.

10.

How may accounting be a means of alleviating business disturbances?

The General Problems of Accounting

11.

What are the important facts which the owner or investor wishes to know and which should be presented by the accountant?

12.

The property of enterprise A is owned outright by one individual. Enterprise B is a corporation and its ownership is represented by stockholders, bondholders and noteholders. In which case is the need for sound accounting more urgent? If the exclusive ownership of enterprise B were represented by a single issue of capital stock, how would you answer the above question?

13.

Name several important interests other than the immediate managers and owners that may desire information from the accounts.

14.

"It is possible for competitive enterprise to be reasonably efficient and to furnish services and commodities at reasonable prices without the use of elaborate accounting records; but with the development of public control and ownership the importance of accounting is greatly magnified." Without assuming the truth of the first clause argue for the validity of the second.

15.

What relation have increased population and the depletion of natural resources to the development of accounting? Name some of the important problems facing the management of the typical modern enterprise which require elaborate statistical information for an adequate solution.

II

THE THEORY OF BALANCE SHEET ACCOUNTS

The Fundamental Classes of Data

1.

Define *asset* or *property*. Make a list of the important classes of property owned by some enterprise with which you are familiar. What is the important element which all these items have in common?

2.

What is meant by the term "equities" as used in the text? Make a list of the equities you would expect to find in a retail clothing enterprise.

3.

Define the *balance sheet*. Prepare a balance sheet for some enterprise with which you are familiar.

The Accounting Equation

4.

"The equities represent the *equitable dispersion* of the asset *total* among the various interests having financial rights in the enterprise. Thus the determination of the equities involves a process secondary to, and dependent upon, that of discovering the assets. An equational statement of the two classes is accordingly inevitable."

Restate in your own words and discuss.

5.

A has some capital which he desires to invest in business. He becomes interested in a successful retail store. The records show that the property of the enterprise (stock, fixtures, etc.) is worth $23,000, and an inventory verifies this figure. B, the present proprietor, offers to sell out to A for the above amount. Can A proceed intelligently on the basis of this information alone? Explain carefully, drawing a general conclusion.

6.

Classify the following items as assets and equities:

Store Site	$ 8,000
Store Building	35,000
Warehouse Lease	2,500
Mortgages	12,000
Office Equipment	400
Store Equipment	2,000
A, Proprietor	16,000
Merchandise	25,600
Delivery Equipment	1,800
Notes Payable	8,000
B, Proprietor	32,000
Accounts Receivable	2,500
Notes Receivable	400
Worden Supply Co.	6,000
Miscellaneous Accounts Payable	6,200
Cash	2,000.

7.

The following items are found listed in the financial statements of the Stanley Improvement Co.: Real Estate; Real Estate Loans; Furniture and Equipment; Bills Receivable; Capital Stock; Cash in Bank; Other Cash Items; Franchises; Bills and Accounts Payable; Accounts Receivable; Mortgages; X Co.'s First Mortgage Bonds.

Arrange the above in balance sheet form, assuming amounts. Can you be sure that your classification in this case is correct? How does the last problem differ in this respect?

8.

On June 30, 1921, the business assets of E. P. Rowan are: cash, $1,600; stock of merchandise, $15,800; furniture and fixtures, $1,200; delivery equipment, $830; securities, $5,300. In addition, J. Peterson owes him $650, and P. H. Hewitt, $150. He owes James Bros. $1,250 on open account; and his 60-day, 6% note at the First National, drawn for $1,000, is due July 1.

What is the amount of E. P. Rowan's interest in the business? Set up a balance sheet.

9.

The City Coal Company is organized December 1, 1920. The proprietors are A. B. Culver and D. E. Flushing, *equal* partners. On January 1, 1921, you are called in to prepare a balance sheet showing the present financial condition of the firm. You find assets and liabilities as follows: cash, $1,000; coal, $6,000; office furniture and equipment, $300; note payable, $500; due from Homer Horner, $400; supplies, $50; due to Babbitt and Company, $1,500; unexpired insurance, $30; rent accrued on yard and office, $200. Exhibit this statement.

Assuming each partner invested $2,700 on December 1, 1920, what was the profit for the month of December?

10.

H. E. Atz and N. O. Sears form a partnership to conduct a hardware specialties store, each investing $10,000 in cash. An additional $10,000 is acquired from A. D. Rand, the partners giving their joint note to Rand for one year at 6%. From these funds the following items are purchased: building, $7,000; fixtures, $1,000; office equipment, $500; supplies, $200; hardware, $9,000; delivery equipment, $1,800. Further hardware stock

amounting to $1,500 is bought on time (60 days) from the B Co. J. V. Ward, a local carpenter, installs the fixtures, accepting merchandise with a cost value of $50 in full payment for his services. The partners pay the D Co. $400 for exclusive selling privileges, for 5 years, with respect to certain specialities.

Prepare a balance sheet showing the financial status of Atz and Sears, partners, at the conclusion of these occurrences.

11.

The following statement represents the balance sheet of the Ebers Mfg. Co.:

Assets		Equities	
Real Estate..........	$ 25,000	Capital Stock	$100,000
Factory Building	40,000	Bonds	70,000
Tools and Machinery.	28,000	Notes Payable	8,600
Materials and Supplies	60,000		
Notes and Accts. Rec.	13,500		
Cash	12,100		
Total	$178,600	Total	$178,600

The entire ownership of this enterprise, stocks, bonds and notes (with the exception of capital stock, $1,000), is now in the hands of O. D. Hanson, who has gradually bought out all other interests. Assuming that all of Hanson's property is invested in this company prepare his personal balance sheet. What comment have you to make?

12.

"In many cases there is no equation between the two sides of the balance sheet. It is a well-known fact that many corporations are greatly overcapitalized, having issued large quantities of watered stock. Further, the liabilities of the bankrupt concern commonly exceed its assets."

Discuss critically.

13.

The Blank Co.

Assets		Equities	
Real Estate	$ 40,000	Proprietor	$ 40,000
Plant and Machinery	60,000	Mortgage	60,000
Supplies	20,000	Notes Payable	20,000
Cash	10,000	Accounts Payable	10,000
	$130,000		$130,000

Discuss the above statement. Is there any *necessary* relationship between the equal items in the opposite columns? Explain.

14.

Distinguish between *proprietorship* and *liabilities.*

THE CONSTRUCTION OF ACCOUNTS

15.

State the significance of business operation in terms of effect upon balance sheet classes. What is the objection to attempting to register the results of operation directly in the balance sheet statement?

16.

The following record is found among some papers:

Cash	
+	$10,000
—	500
—	1,200
+	610
+	75
+	64
+	3,600
—	790
+	140
—	6,200.

Is this statement an account? Explain fully. Arrange these items in conventional account form.

17.

Explain in your own words the construction of the asset and equity accounts. What information should be shown by these accounts?

18.

"The parallel-column or 'T' account is a very satisfactory technical device for three reasons: (1) the positive and negative classes of data, each of which may be of intrinsic importance, are thus separately preserved for a period; (2) it makes it possible to postpone computation, thus saving clerical labor and reducing the probable number of errors; (3) figures listed in parallel vertical columns can be combined more accurately and in less time than figures assembled in any other way—in horizontal columns, for example."

Explain and illustrate each of these propositions.

Classes of Transactions

19.

Give a three-fold classification of transactions in terms of asset and equity facts. Illustrate each type. Show that every transaction gives equal entries in opposite columns if *all* the facts are recorded.

20.

Explain the effect of each of the following transactions upon the asset and equity classes:

(a) Machinery is purchased for cash, $500.

(b) Finished goods are sold for $550, cash; assets to the amount of $475 are consumed in producing these goods.

(c) Coal is purchased for cash, $100.

(d) Owner B withdraws $500 of his investment in cash.

(e) Owner C, who has an interest of $20,000, retires from active control and receives a second mortgage on the assets of the enterprise for the amount of his equity.

(f) The firm discovers, by accident, a new process worth $5,000. The cost of patenting and perfecting is $1,000.

(g) Notes payable, $5,000, are retired, and bonds are issued for the same amount.

(h) Capital stock, $5,000, is issued for cash.

(i) Furniture to the amount of $300 is stolen.

21.

Rule up skeleton accounts and record the following transactions:

(a) The firm buys goods, $400, on account.

(b) The firm borrows $500 from a bank on a 60-day note.

(c) The firm settles an open account of $200 with a note.

(d) The property of the firm is mortgaged for $4,000; cash for the amount of the mortgage is received.

(e) A customer's account, $300, is paid in cash.

(f) The firm is given $500 anonymously.

(g) The proprietors invest $25,000, cash.

(h) First mortgages, $10,000, are issued in exchange for a partner's equity of the same amount.

(i) The mortgages mentioned in (h) are retired with cash, $10,000.

22.

On Jan. 1 A's balance sheet stands as follows:

Assets		Equities	
Cash	$ 300	A, Capital	$1,600
Goods	1,500	Note Payable	200
	$1,800		$1,800

The following transactions occur during January. Goods are sold for cash, $800. Merchandise is sold on account to G. Gough, $200. Later Gough gives his 60-day note at 6% for $100 as part

payment; turns over a \$50 bond which has a present value of \$48, and performs services in helping to operate the business for which he is allowed a credit of \$52. Merchandise is sold on account to X Co., \$200. Goods are bought on account from the X Co., \$200. Aside from Mr. Gough's assistance A furnishes all necessary services himself; and there are no other costs. The value of goods on hand Jan. 31 is \$450.

Enter the above data in skeleton accounts and prepare a new balance sheet statement as of Jan. 31.

23.

State concisely the effect of each of the following upon the firm's balance sheet: (a) new investment by the proprietors; (b) borrowing of money; (c) payment of *accrued* payroll; (d) cash purchase of real estate; (e) cash purchase of postage stamps; (f) an embezzlement by the cashier; (g) a cash distribution of earnings; (h) receipt of cash from a customer on account; (i) credit purchase of raw materials; (j) payment of freight on materials; (k) payment of a creditor's account; (l) gift of land from the local Chamber of Commerce; (m) settlement of a customer's account for 50% of its face; (n) payment of an open creditor's account with a promissory note for the same amount; (o) transfer of raw materials from storeroom to factory; (p) cancellation of a prospective customer's order; (q) loss by fire of fully insured property; (r) receipt of check from insurance company to cover fire loss; (s) damage by earthquake to uninsured property.

Double-Entry—Debit and Credit

24.

" 'Double-entry' bookkeeping does not mean, as some seem to suppose, a system by which each business fact is recorded *twice*. Instead, *double-entry* is essentially a system by which every asset and equity fact in the particular business situation is set down

once. Any scheme which accomplishes this, regardless of its technical peculiarities, is true double-entry. The term is, in a way, a misnomer. It does not indicate duplication, but refers instead to the fact that at least *two* distinct effects upon the financial status of the enterprise are involved in every business transaction."

Explain and support this statement. What, then, is meant by "single-entry" bookeeping?

25.

"Debit that which receives value; credit that which gives up value."

"Debit that account or person which is entrusted with responsibility; credit that account or person which acquits itself of responsibility."

"*Debit* indicates facts favorable to the proprietor; *credit* indicates facts unfavorable to the proprietor."

"The term *debit* always indicates that the person or account debited has assumed the position of *debtor* to the business; *credit* always indicates that the person or account credited has thereby assumed the position of creditor."

"Debit that which comes into the business; credit that which goes out."

Discuss the above statements critically. State the significance of these terms as used in the textbook.

III

THE CONSTRUCTION OF SUPPLEMENTARY ACCOUNTS

Current Asset Accounts

1.

"To carry on its operations successfully the typical enterprise requires a variety of current commodities and services as well as the use of fixed assets."

Give several examples of *fixed* assets. *Current* assets. What is the character of an account which is used to show purchases of a current service, ordinary labor for example? Give rules of debit and credit for such an account.

2.

"All current services and commodities which are voluntarily acquired by the business enterprise at a price constitute an addition to the total of its wealth or property *at the moment of purchase.*"

Explain and support. In view of the fact that labor services utilized can have no separate and distinct existence how is it that the cost of such services can contribute to the total of a concern's assets?

Expense and Revenue Accounts

3.

"Accounting transactions, in a broad sense, can be classified into three groups: (1) *explicit* business happenings or occurrences, usually involving the business enterprise with some out-

side person or interest; (2) *implicit* or internal occurrences, *i. e.*, the happenings and processes of change which represent operation in the strict sense; (3) formal book entries, the classification and re-classification of data in the accounts purely for purposes of convenience, there being no accompanying objective happenings or processes."

Illustrate each of the three types.

4.

"If all the facts involved in the sale transaction could be immediately ascertained, that is, if the entire happening could be at once reduced to its lowest terms, there would be no need for the use of supplementary expense and revenue accounts. The necessity for such accounts arises out of the fact that, although the kind and amount of assets received when a sale is made (usually cash or accounts receivable) are definitely known, the value of the structures, commodities, and services which have expired, and have disappeared from the business embodied in finished goods, is usually not immediately ascertainable."

Show, definitely, that this is the case.

5.

"Gross revenue is a credit item. The explanation lies in the fact that revenue is an amalgamation of two more fundamental elements, *viz.*, subtractions from assets and additions to ownership. Since both of these elements are credits their sum is likewise properly a credit. Periodically the expirations of purchased items, the *costs* of this revenue, are deducted therefrom in a lump sum. The balance precipitated by this process constitutes the net operating revenue for the period, the net increase in equities. The gross revenue credit for the period is thus a provisional, intermediate figure which has not yet been reduced to its lowest terms. And *the expense for the period is the cost of producing the particular volume of revenue which has originated during the period.*"

Explain and discuss. If a business were being operated at a loss, *i. e.*, if the assets received from sales were less in amount than the expirations occurring concurrently, what would be the proper explanation of the gross revenue credit?

6.

Mr. X owns a rocky hillside much favored by picnickers, but having no other use whatever. He charges each person making use of these grounds fifty cents a visit. He has no expenses of upkeep, no costs of collection, and taxes are negligible. Precisely how should the sale of the use of this land be recorded in Mr. X's accounts and how would each such transaction effect a balance sheet statement of his financial condition? Can you give an illustration of a business which has no expenses?

7.

"Some asset items pass through three distinct stages: (1) purchase or acquisition; (2) utilization and conversion to new forms; (3) final disappearance from the business embodied in finished goods. In other cases the last two of these stages are coincident. Still other items are acquired, utilized, and converted into expense virtually instantaneously."

Explain fully, giving examples under each of the cases mentioned.

8.

John and George Hurley begin business as grocers under the firm name Hurley Bros. Each partner deposits $5,000 with the local bank to the order of the firm. A store building is rented for $100 per month, a month's rent being paid in advance. Second-hand fixtures are purchased for cash, $600. The cost of repairing and installing fixtures is $100, cash. Goods are purchased from a wholesaler for $3,000; the wholesaler accepts a note for $1,500, the balance is paid in cash. A week's advertising space is purchased from a daily paper, $25. Stationery and

other supplies are purchased for cash, $35. Goods are sold for cash, $180. Goods are sold on account to various parties, $60. Goods are purchased for cash, $750. John Hurley decides to withdraw $2,500 of his capital from the enterprise. Fuel is purchased on account, $200. Cash sales are made amounting to $540. Merchandise is sold on account, $675. Goods are purchased for cash, $860.

Let us suppose that the above statement is a record of all purchase and sale transactions for a period of two weeks. Organize this record into accounts. Do the accounts you have prepared represent the exact present status of the enterprise? Explain.

9.

The A. B. Co.

Assets		Equities	
Real Estate	$40,000	A. B. Co., Capital	$75,000
Fixtures	2,800	Notes Payable	10,500
Merchandise	38,500		
Supplies	3,000		
Cash	1,200		
	$85,500		$85,500

The above statement represents the financial condition of the A. B. Co., organized and ready for operation. Open the necessary accounts to record these facts.

During the first week of operation finished goods were sold for cash to the amount of $1,200, on account, $650, and in exchange for promissory notes, $380. Assets were consumed as follows: real estate, $90; merchandise, $1,100; supplies, $200; fixtures, $15; miscellaneous services, $180 (purchased with cash and consumed). Notes outstanding were retired with cash to the amount of $500. Merchandise was purchased for cash, $900, on account, $4,100. The firm borrowed $1,000 from the bank, giving a 6% note.

Record these occurrences, opening any necessary accounts, and prepare a statement of assets and equities. What important conclusions can be drawn by comparing the two balance sheets? Contrast this problem and the preceding.

10.

"Even if it were feasible to ascertain immediately the underlying asset and equity facts involved in every sale transaction, it would still be convenient from the standpoint of clerical efficiency to allow revenues and expenses to pile up in separate accounts for a period; and it would be further desirable in view of the fact that periodic expense and revenue are operating facts of the utmost intrinsic importance from a managerial standpoint."

Explain, and argue in support of this statement.

11.

Y, a schoolboy, sells pop at the football games. At the beginning of a particular day's business his financial condition might be represented as follows:

Cash ....$5.00 Y, Capital $5.00

He buys pop to the amount of $4.50, paying therefor in cash and reserving fifty cents to make change. During the day his sales, all for cash, total $9; and he still has pop on hand with a return value of fifty cents. He furnishes all services himself and there is no license fee or other cost.

(a) Record this entire situation in *balance sheet* accounts, and exhibit a new balance sheet.

(b) Record this situation, making use of supplementary expense and revenue accounts.

(c) Compare carefully the two solutions.

Special Equity Accounts

12.

Distinguish between *loss* and *expense*. Show that if the operating accounts are going to be of the utmost use to the management this distinction should be carefully observed as far as possible.

13.

Classify the following as *loss, expense,* or *asset,* giving your reasons in each case: (1) labor cost of installing a new machine; (2) freight paid on raw materials received; (3) loss of coal by theft; (4) donation to Red Cross; (5) damage from cyclone; (6) shrinkage in value of securities owned; (7) damage paid to shipper by a railroad company; (8) damages received from employer as compensation for personal injury; (9) lawyer's fees paid in defending patent rights; (10) lawyer's fees paid in taking out patent; (11) fire insurance premium paid; (12) salary of special salesman; (13) cost of remodeling a building so as to comply with regulations of the local health department; (14) cost of demolishing old shingle roof and putting on tile roof.

14.

Show that, in separating expenses and net losses, the following questions are of importance:

(1) Is the management responsible for the outlay?
(2) Is the cost of a regularly recurring type?
(3) Is any benefit conferred on the business by the outlay?

15.

Explain the following transactions, noting particularly their effect upon the Net Revenue and Surplus accounts:

(a) Goods are damaged by fire, $2,000.
(b) The stockholders are paid $5,000 in cash as dividends.

(c) The firm receives $300 as interest on bonds owned.
(d) The firm pays $400 in interest on outstanding mortgages.
(e) The company pays an income tax amounting to $3,500.
(f) The company is given a factory site valued at $5,000 by the local Chamber of Commerce.

16.

Define *deficit, surplus.* Give several examples of current liabilities.

Valuation Accounts

17.

From the books of the X Co. you discover that although the formal capitalization of the company was $100,000 the stockholders actually received their stock at a discount of 10%. What, under these circumstances, was the true initial equity of the stockholders?

You further find that the Buildings account of the Company shows a debit balance of $50,000, and that Allowance for Depreciation of Buildings shows a credit balance of $2,000. Interpret.

Give a definition of the "valuation" account which will cover all cases.

The Classification of Accounts

18.

What is meant by saying that accounts must be classified in terms of their predominating characteristics? Which of the accounts most nearly approximates a perfect asset account?

19.

"An item which is distinctly an *asset* at the moment of acquisition may be recorded in an account which is essentially an *expense* account." Explain.

What is a "mixed" account? Illustrate.

20.

Classify the following transactions into debit and credit items:

(a) The bookkeeper's salary is paid in cash, $20.

(b) Coal to the amount of $60 is purchased for cash.

(c) A customer pays his account, $75.

(d) Finished goods are sold for cash, $300.

(e) Finished goods to the amount of $600 are sold on account.

(f) The account mentioned in (e) is paid in cash.

(g) Depreciation of the plant, to the amount of $600, is recognized.

(h) Fuel has been consumed, $100.

(i) The machinery is repaired, $50.

(j) Cash, $200, is paid for labor services.

(k) An insurance premium of $100 is paid in cash.

(l) Miscellaneous services are purchased with cash, $100.

(m) Miscellaneous services are consumed, $100.

(n) The firm gives $100 in cash to the Red Cross society.

(o) Cash is received, $400, from a lease covering a portion of the factory building.

IV

THE ANALYSIS AND RECORDING OF TRANSACTIONS

The Books of Record and Account

1.

What is meant by an accounting transaction? State the essential steps which must be taken in analyzing and recording a transaction, naming the principal books involved. Is it necessary that several distinct books be used? Explain.

Review Problem 3, Chapter III.

2.

Describe the *daybook* or "blotter."

The Journal

3.

Describe the simple journal in some detail. What is the essential function of the journal? What other purpose does the journal usually serve?

4.

(Form B)

Journalize the transactions given in Problem 20 (Chapter III). Name the accounts and assume dates, ledger page numbers, and other details you think necessary.

5.

Name several specialized journals.

6.

(Form B)

Journalize the following transactions. (Use care in selecting the names of accounts).

July 2. R. A. Newland begins business with a capital (all in cash) of $10,000. He rents a store building, paying 3 months' rent ($270) in advance.

July 3. Merchandise is purchased from Paley & Co., $3,000. Terms: $1,500 cash, and a 60-day, 6% note for the balance. Store fixtures are purchased for $500 in cash. Office furniture is purchased on account from N. W. Hart, $200.

July 5. Stock and fixtures are insured for one year; premium, $25. Stationery and other supplies are purchased for $20, cash. Cash sales of merchandise, $40. Merchandise is sold on account to J. R. Walters, $55.

July 6. Cash is paid for advertising, $10. Cash sales, $35.

July 7. The clerk's salary is paid, $15. Goods are bought on account from E. P. Smith Co. to the amount of $500. Cash sales, $65. Merchandise is sold on account to R. J. Parsons, $28.

July 9. Goods are sold on account to F. A. Talbot, $450.

July 10. J. R. Walters returns merchandise to the amount of $10 as unsatisfactory. His account is credited.

July 12. Mr. Newland buys the building and site he has been renting for $10,000. Payment is made as follows: cash, $3,000; the former owner assumes F. A. Talbot's account; prepaid rent for 2½ months is allowed as part payment; a mortgage is given on building, stock and fixtures for the balance.

July 13. Mr. Newland withdraws $300 in cash for his personal use. The account with N. W. Hart for office furniture is paid in cash. Mr. Hart allows a discount of 2%. (Credit Furniture and Fixtures.)

July 14. Cash sales for the week, $350. Sold on account to R. J. Parsons, $28. The clerk's salary is paid, $15.

July 16. Delivery equipment is purchased for cash, $250. Merchandise is sold on account to F. A. Talbot, $60.

July 17. An examination of the stock of stationery and sup-

plies shows that such items amounting to $15 have been consumed. Cash is paid for additional supplies, $20. J. R. Walters pays $25 to apply on his account.

July 18. R. J. Parsons pays his account with cash in full. Additional equipment for the store is purchased on account from N. W. Hart, $105.

July 21. Cash sales for the week, $380. The clerk's salary is paid as usual. Sold on account to R. J. Parsons, $28. F. A. Talbot pays $30 on account.

July 23. Fuel for winter months is purchased for cash, $95. The account with E. P. Smith Co. is paid in full with cash. Goods are purchased on account from Paley & Co., $750.

July 28. Cash sales for the week, $480. Sold on account to J. R. Walters, $60; to R. J. Parsons, $28. The clerk's salary is paid.

July 31. Mr. Newland buys the business of a competitor in an adjoining building. He pays $2,500 cash for stock and goodwill, and assumes a note for $500. Goodwill is estimated at $300. Miscellaneous expenses for the month are paid in cash, $75.

The Ledger

7.

Describe the ledger and the ledger account. Contrast the journal and ledger.

Explain the principle of the *controlling* account and illustrate.

8.

X, a merchant, has about ten trade creditors. In his ledger he keeps a single account, Accounts Payable, and no individual accounts.

Show that this procedure would be unsatisfactory; in other words that, while the controlling account may perhaps be dispensed with in such a case, the individual accounts must always be used.

Journalizing

9.

(Form B)

September 1, 1921, Charles Spenlow starts a wholesale hardware business. The enterprise is small at first and the only books used are journal and general ledger. The following transactions represent a month's business. Journalize, assuming dates.

Charles Spenlow invests $15,000 in cash. He pays $2,500 for equipment, and $6,000 for real estate. Merchandise is purchased from the Wexton Mfg. Co. for $3,800 in cash. Sells H. A. Knox, on account, merchandise amounting to $500. Unsatisfactory hardware to the amount of $200 is returned to the Wexton Mfg. Co. Merchandise amounting to $1,200 is purchased on account from W. Winslow Co. Sells to H. A. Knox, on account, a bill of goods amounting to $250. Sells to Rodgers Hardware Co. merchandise on account, $425. Receives from H. A. Knox, on account, $400. Sells to Rodgers Hardware Co. goods amounting to $650, on account. He pays W. Winslow Co. $450 on account. Rodgers Hardware Co. pays $300 on account. The general expenses for the month, amounting to $440, are paid in cash.

10.

(Form B)

S. A. Johnson conducts a retail shoe store. After his business has been in operation for one month his ledger shows the following condition: Equipment—debits $680, credits $20; Cash—debits $1,370, credits $400; Merchandise—debits $4,700, credits $1,685; Accounts Receivable—debits $448, credits $110; Accounts Payable—debits $600, credits $1,250; Notes Receivable—debits $100, credits $100; Notes Payable—no debits, credits $300; Proprietorship, S. A. Johnson—debits $125, credits $4,275; Salaries—debits $60, no credits; Heat and Light—debits $12, no credits; Miscellaneous Expense—debits $45, no credits.

Assume and journalize a series of transactions which would account for this situation.

11.

(Form B)

In addition to the transactions given in Problem 6, the assets of R. A. Newland have been affected during the month of July as follows: the building has declined in value since July 12, \$35; store fixtures have depreciated \$5; merchandise has been damaged and shopworn to an amount estimated at \$40; of the accounts receivable R. J. Parsons' balance is considered uncollectible; cash is missing from the till, \$12.

Journalize these additional facts.

12.

(Form B)

A buys a house from B. The premises are rented at \$60 per month, payable semi-annually, two months' rent being accrued at date of purchase. A pays cash, \$4,500, and makes over a note to B drawn against C for \$500, interest at 6%. This note has already run for six months. Give the entries on A's books at the time the house is purchased and at the time the next semi-annual rent payment is made.

13.

(Form B)

A owns a farm, which represents his entire capital. On January 1, 1915, A sells the farm to B for \$14,930. He receives \$5,000 in cash and a mortgage in the premises for the balance. B makes no payments on the mortgage, either principal or interest, and two years from date of sale A forecloses and redeems the farm. The cost of redemption is \$11,000, distributed as follows: mortgage cancelled, \$9,930; back taxes, \$400; clerical and other costs, \$670. During the two years, A has been credited with \$280 interest on his original bank deposit of \$5,000 and its balance. He has withdrawn \$2,000 for living expenses.

Assuming that this statement represents A's financial history for two years, and that the farm January 1, 1917, is worth the original selling price, give journal entries on A's books covering these transactions. What is A now worth? Assuming that the farm would have yielded just the amount of his living expenses during the years of B's occupancy, what did A gain by making the sale?

14.

(Form B)

After four days' operation the trial balance of A, a wholesaler, stands as follows:

	Dr.	Cr.
Purchases	$3,200	$ 200
A, Capital		3,500
Cash	4,200	2,450
Accounts Payable	500	1,300
Sales		1,200
Notes Receivable	100	
Accounts Receivable	500	100
Supplies	50	
Office Equipment	150	
A, Drawing	50	
	$8,750	$8,750

Prepare journal entries, in summary form, which might reasonably account for this condition.

15.

(Form B)

S. D. Lester, a lumber dealer, does not keep books by the complete double-entry method. At the beginning of the second year's business his records show the assets to be as follows: real estate, $26,000; merchandise, $59,000; equipment and supplies, $6,000; accounts and notes receivable, $13,000; cash, $4,800. The

accounts show mortgages and notes outstanding against the property, $36,000; the accounts payable amount to $12,800. No other information is shown in the accounts.

Prepare a journal entry which shows a *complete* statement of assets and equities.

16.

(Form B)

H. A. Edloe sells some real estate property to the Danville Realty Co. for $15,000. Payment is made as follows: cash, $3,000; a first mortgage in the property, $10,500; capital stock in the International Timber and Livestock Co., $1,500. Edloe assigns the mortgage to a bank, receiving $10,000 cash. He buys a house and lot for $6,000, paying $5,000 in cash and assuming a mortgage for $1,000. The stock of the International T. & L. Co. is discovered to be worthless.

Give journal entries on Edloe's books covering these transactions.

17.

(Form B)

Journalize the following transactions:

Feb. 1. R. M. Jones invested in business $2,500.00 in cash.

Feb. 1. Paid cash for February rent, $75.

Feb. 2. Bought from J. N. Price, on account, merchandise invoiced at $560.

Feb. 3. Sold merchandise for cash, $56.50.

Feb. 5. Issued our note for $150, due in 30 days at 6%, in favor of J. N. Price, to be applied on account.

Feb. 6. Sold to R. B. Rodman, on account, goods billed at $73.50.

Feb. 8. Bought furniture and fixtures, including glass showcase for store, $750. Paid cash.

Feb. 9. Paid J. N. Price $125 in cash, on account.

Feb. 10. R. B. Rodman paid $45 on account, in cash.

Feb. 11. R. M. Jones took $25 in cash to pay a personal bill.

Feb. 12. Sold to T. R. Martin merchandise, $165.50, for cash.

Feb. 12. Paid cash for 750 two-cent stamps.

Feb. 16. Sold three glass show cases, second-hand, to T. J. Murray for $110. He paid cash.

Feb. 18. Accommodated a friend with 100 two-cent stamps, for which he paid cash.

Feb. 19. R. M. Jones invested $2,000 more in cash in the business.

Feb. 20. Sold to B. M. Miller, on account, goods invoiced at $135.

18.

(Form B)

Journalize the following:

(a) A and B form a partnership, each depositing $5,000.

(b) Merchandise is purchased for cash, $4,000.

(c) C loans the firm $2,000 on a chattel mortgage.

(d) An order is secured from D amounting to $500, freight to be paid by the vendor. The goods are shipped. Merchandise cost of the shipment is $300; preparing, packing and shipping costs total $110.

(e) A withdraws $200.

(f) A donation of $100 is made to a campaign fund.

(g) Supplies for advertising service are received from the printer, $80.

(h) D pays $200 on account.

(i) A check is drawn in favor of the printer, $80.

(j) The landlord presents his bill for the month's rent, $125. Later he accepts goods with an ordinary selling value of $150 in payment.

(k) The partners buy the store and fixtures where they are located, paying cash, $7,000, and giving the firm's note for the balance, $2,000. The fixtures have an estimated value of $800.

19.

(Form B)

A buys goods of B for $2,500 and accepts B's draft on himself for the amount. B discounts the draft at his bank, the discount being $5. A can not pay at maturity. B's bank charges him with the face of the draft plus protest fees of $2. Some weeks later A pays B the $2,500, interest, $4, accruing since the original date of maturity, and the amount of the protest fees.

Journalize on A's books and on B's books.

20.

(Form B)

(a) A owes B $1,200 on open account for goods purchased. B offers A a discount of 3% for cash. To secure funds A discounts at his bank at a 6% rate a note which he holds against C. This note is drawn for $1,152.70 for 120 days, carries a 6% rate, and has 60 days yet to run.

Give journal entries on A's books to cover the discounting of the note and the payment of B's account.

(b) A buys goods from B with a gross invoice price of $1,000. B offers a discount of 2% for payment within 10 days, and A later accepts this discount. A sells goods on account to C to the amount of $500. Terms: 1% off if paid in 20 days. C later takes the discount.

Journalize on A's books.

21.

A sum of $250 received from a customer on account is journalized and entered as a cash sale. Give journal entries which would correct this error.

22.

(Form B)

Journalize the following transactions taken from the financial history of J. Blair, a retailer:

Jan. 2. Goods are bought on account from M. D. Atkins, $400; a month's rent is paid, $40; merchandise is sold on account to A. Snow, $15, and to B. Cole, $20; supplies are purchased for $40, cash.

Jan. 3. Goods are bought on account from Baptros Wholesale Co., $700; cash sales for the day, $65; sales on account to B. Cole, $10.

Jan. 4. Cash is paid for stationery, $5; cash sales total $70; advertising bill is paid, $10.

Jan. 5. Goods are sold on account to S. Sherman, $15; A. Snow pays his bill of the 2nd; check for $10 is mailed to the Baptros Wholesale Co. on account; cash sales, $100; donation to foreign relief, $10; $400 is borrowed from the Y. Bank on a 30-day note at 7%; M. D. Atkins' account of the 2nd is paid, a discount of 2% being secured.

Jan. 6. Wages are paid, $30; cash sales, $90.

23.

(Form B)

Journalize the following, showing account titles and amounts, but omitting details:

(a) X, a proprietor, turns over to the business a car worth $1,200.

(b) The firm borrows $1,000 from the X bank on its promissory note.

(c) The management decides that the accrued depreciation of equipment for the year is $2,000.

(d) Real estate is purchased for cash, $5,000.

(e) X withdraws $500 in cash and merchandise with a selling price of $65 and a cost value of $50.

(f) A, a customer, pays his account, $200.

(g) Product is sold to B, on account, $100.

(h) The net profits for the year; $5,000, are apportioned equally between the two owners, X and Y; each partner withdrew $2,000 in cash.

(i) Materials are purchased on account from the A. B. Company, \$1,500.

(j) The account incurred under (i) is paid, a 2% discount being allowed the firm.

(k) Interest to the amount of \$100 has accrued on mortgages payable.

(l) The shop foreman requisitions materials amounting to \$200 from the storeroom.

(m) On a special Saturday sale merchandise which cost \$500 is sold for \$450.

(n) On October 1, the firm receives a bill for \$15 from the telephone company covering service for the quarter, October to December.

(o) Coal burned amounts to \$100.

(p) Materials are returned to the A. B. Company as unsatisfactory, \$100.

(q) The firm takes up the note mentioned under (b), paying \$500 cash and giving a new note for \$505.

(r) Insurance expired amounts to \$80.

(s) B pays the account mentioned under (g) by furnishing services as a salesman.

(t) The firm buys a machine on account; the invoice price is \$800; freight charges thereon amounting to \$40 are paid in cash; cost of installation (wages of workmen temporarily detached from the regular operating staff, and which will not be paid for two weeks), \$20.

24.

(Form B)

On June 1 A sells a shipment of goods to B on account. The gross price is \$1,000, subject to a discount of 2% if paid in 10 days. On June 10 B pays \$500 on account and gives A his one-year, 6% note for \$200, dated June 1. B claims a discount of 2% on his cash payment and A agrees to allow it. On June 30 a memorandum is received from B claiming a rebate of \$50 because of unsatisfactory goods included in the shipment. A in-

vestigates and agrees to accept the return of goods with a gross selling value of $100 (and a cost—to A—value of $75) and to settle the balance of the account for $180, cash. B agrees, returning the goods and sending his check for $180. On Oct. 1 A discounts B's note at a 6% rate.

Give journal entries covering the foregoing on A's books.

Posting

25.

In what does the process of posting consist?

26.

(Form C)

Open the necessary ledger accounts and post the transactions given in Problem 6 above. Do not use any controlling accounts.

27.

(Form C)

Open appropriate ledger accounts and post the entries made in working Exercises 9 and 15.

28.

(Form C)

Open appropriate ledger accounts and post the entries made in Exercise 17.

29.

H. I. Oldey begins business on January 1 as a grain buyer, investing $4,000. During the month he buys a horse and rig at a cost of $300, cash; his purchases of oats total $1,200, of wheat, $3,000, and of other grains, $500; all purchases of grain are for cash except one lot from W. Flickner to the amount of $700, Mr.

Oldey in this case giving Mr. Flickner his 60-day note at 6% for $500 and agreeing to pay the balance in cash on Feb. 5; sales of wheat to the X Commission Company total $3,500, of oats $1,100, and of other grains $700; cash receipts from the X Commission Company on account total $3,800; oats to the amount of $10 (cost value) are used for horse feed; freight charges on outgoing shipments amount to $300, of which amount $50 is still unpaid; expenditures for miscellaneous business items total $20.

(a) Prepare journal entries (Form B) covering the above, showing account titles, amounts, and brief explanations.

(b) Open appropriate accounts (Form C) and post.

(c) Take a trial balance.[1] (Form B).

(d) Show precisely why no reliable conclusion concerning the financial status of Mr. Oldey's grain business at the end of January, or of the success of operations during the month, can be drawn from the above data.

30.

Present trial balances covering the ledger accounts which you have prepared from transactions given in Exercises 6, 9 and 17, respectively.

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[1]Since the trial balance has not been explained in the text up to this point, a brief oral explanation of this device should now be made by the instructor.

V

DEVELOPMENTS IN TECHNIQUE

1.

What is the primary purpose of the special-column device in bookkeeping? What additional purpose is served by the use of subsidiary journals and ledgers?

The Special Column Journal

2.

(Form C)

Open the necessary ledger accounts to record the entries shown in the illustration on pages 78-80 of the text. Make all the postings to the ledger which are indicated in the illustration. Check the customers' and creditors' ledgers with the proper controlling accounts in the general ledger.

3.

(Form D)

Enter the following transactions in a special-column journal. Adopt the same column headings as are used in the illustration on pages 78-80 of the text-book, as these transactions are a continuation of that illustration.

Feb. 1. Cash sales for the day amount to $285. Merchandise amounting to $1,500 is purchased from the Crane Company; terms, 2/10 n/30.

Feb. 2. The bill of the Crane Co. dated Jan. 2, amounting to $3,000, is paid; a discount of 1% is allowed. Sales on account are as follows: J. R. Kerwin, $150; George Otto, $75; John Quincy, $95.

Feb. 3. A payment of $500 is made to a local attorney for services incident to transferring some property. Cash sales for the day are $395.

Feb. 4. A bill of goods amounting to $500 is purchased from the Brainerd Mfg. Co.; terms 2/12 n/30.

Feb. 5. The bill of the Brainerd Mfg. Co. for $450, dated Jan. 11, is paid. A discount of 1% is taken. Cash sales for the day are $275.

Feb. 6. The cash sales amount to $60. Sales on account: to N. B. Lawrence, $10; to R. N. Martin, $25. The salaries for the week amounting to $250 are paid. The invoice of the Cutlery Company amounting to $300, dated Jan. 6, is paid.

Feb. 8. Insurance premiums on the property are paid as follows: building, $150 for 3 years; furniture and fixtures, $15 for one year; merchandise stock, $90 for one year. Cash sales amount to $80.

Feb. 9. Cash sales for the day amount to $195. The credit sales: J. R. Kerwin, $25; R. M. Martin, $30; and N. B. Lawrence, $45. A new display case is purchased for $75.

Feb. 10. A new garage is built for the business by the Burton Construction Co. at a cost of $500. This is paid in cash. Cash sales for the day amount to $240. The credit sales: George Otto, $50; John Quincy, $75.

Feb. 11. The cash sales are $105. The bill of the Crane Co. dated Feb. 1 is paid. Deduct 2% for discount.

Feb. 12. Cash sales for the day amount to $450. Charge sales: J. R. Kerwin, $75; R. M. Martin, $40; John Quincy, $75. A delivery car is purchased for $750.

Feb. 13. Cash sales amount to $350. A bill of goods is purchased from the Brainerd Mfg. Co. amounting to $450; terms, 2/10 n/30. Clerks' salaries amounting to $275 are paid.

Feb. 15. Gasoline and oil for auto were purchased today for $45. J. R. Kerwin paid $175 on account. The cash sales amount to $225. The sum of $1,000 is borrowed from the bank on a 60-day 6% note.

Feb. 16. The cash sales amount to $250. The credit sales: George Otto, $50; John Quincy, $25. Bill of Brainerd Mfg. Co. dated Feb. 4, and amounting to $500, is paid, less 2%.

Feb. 17. Advertising space in the local paper is paid for in cash, \$75. Merchandise amounting to \$1,500 is purchased from Artland Mfg. Co.; terms 2/10 n/30. Cash sales are \$200. Credit sales: J. R. Kerwin, \$75; R. M. Martin, \$150.

Feb. 18. The cash sales are \$350. Geo. Otto pays \$100 on account.

Feb. 19. Merchandise purchased from the Cutlery Company amounts to \$500; terms, 2/10 n/30. John Quincy pays \$200 on account. Cash sales amount to \$275.

Feb. 20. The cash sales amount to \$175. Salaries for the week amounting to \$300 are paid. Office supplies amounting to \$60 are purchased for cash.

Feb. 22. The cash sales amount to \$195.

Feb. 23. The bill of the Brainerd Mfg. C., dated Jan. 31st, amounting to \$275 is paid in cash—no discount. Cash sales amount to \$150. Received \$95 from R. M. Martin on account.

Feb. 24. Cash sales amount to \$100. Credit sales: George Otto, \$75; J. R. Kerwin, \$50; R. M. Martin, \$50.

Feb. 25. A payment of \$25 is made for advertising.

Feb. 26. Freight bills to date amounting to \$150 are paid. Cash sales amount to \$215.

Feb. 27. Cash sales amount to \$200. Salaries for the week. \$325, are paid. Supplies for the delivery car, \$25, are purchased for cash. A payment of \$10 is made for advertising. The telephone bill, \$4, is paid. The electric light bill, \$5, is paid. Coal is purchased for cash, \$75.

4.

(Form C)

Post the entries from the special-column journal of the preceding problem, using the same ledger accounts which were used for Problem 2. How many postings were saved by the use of the special-column journal over the number which would have been required had the simple type of journal been used? Prepare a trial balance.

Suggest a way in which the entries made in the special-column journal of Exercise 3 could be placed on fewer lines than are required by the standard form of entry.

5.

Show how, by juxtaposing the debit and credit columns applicable to each account, a special-column journal might be made into a combination journal and ledger, in which journalizing and posting would be simultaneously accomplished in one operation.

6.

(Form D)

Enter the following transactions in a special-column journal. (Form D).

Oct. 1. J. B. Preston, proprietor, invested in business $5,000 in cash.

Oct. 1. Paid rent for October in cash, $70.

Oct. 2. Sold to Jno. R. Thompson, on account, bill of goods for $65.50.

Oct. 2. Bought merchandise from the Sterling Furniture Co., for cash, $276.60.

Oct. 3. Sold merchandise to Gus E. Ericson, on account, $47.50.

Oct. 4. Bought merchandise for cash, Palmer & Anderson's invoice, $364.20.

Oct. 5. Received cash from Jno. R. Thompson, on account, $50.

Oct. 6. Sold to Harry K. Feldman, on his 10-day note at 6%, merchandise, $126.50.

Oct. 6. Paid the bookkeeper's salary for the week ending today in cash, $18.

Oct. 8. J. B. Preston withdrew for his personal use $25, in cash.

Oct. 9. Sold to Geo. W. Chambers, on account, $123.75 worth of merchandise.

Oct. 10. Received cash from Gus E. Ericson, on account, $25.

Oct. 11. Sold merchandise to Jno. R. Thompson, on account, $98.50.

Oct. 13. Paid the bookkeeper's salary in cash, as on Oct. 6.

Oct. 16. Received from Harry K. Feldman his check for $126.71 to redeem his note of Oct. 6, $126.50, and interest for 10 days at 6%, $.21.

Oct. 17. Sold to Gus E. Ericson, on account, merchandise, $76.75.

Oct. 18. Paid for office stationery and envelopes in cash, $7.80.

Oct. 19. Sold to Geo. W. Chambers, on account, merchandise, $32.25.

Oct. 19. Received cash from Jno. R. Thompson, to apply on account, $15.50.

Oct. 19. Bought merchandise for cash from the Hoffman Co., their invoice, $225.60.

Oct. 20. Paid the bookkeeper's salary in cash, as on Oct. 6.

Oct. 22. Sold to F. N. Wright on his 30-day note at 6%, bill of goods, $150.65.

Oct. 24. Sold to Jno. R. Thompson, on account, $137.75, merchandise.

Oct. 25. Received from Gus. E. Ericson cash to complete the payment of bill against him of Oct. 3, $22.50.

The Cash Book

7.

Rule up receipts and disbursements sides, respectively, of a cash book suitable for a retail business, and enter at least two illustrations on each side. Select column headings carefully and indicate debit and credit colums with the appropriate signs.

8.

(a) "Most of the columns on the so-called "debit" side of the cash book are *credit* columns; and on the "credit" side we find *debit* columns." Explain.

(b) Show that the "cash" columns may be omitted from

the cash book entirely and that the book may yet be used as a cash account.

(c) Show that in some cases it might be expedient to have *two* cash books, a separate volume for each side.

9.

In some cash books the "purchase discount" column is found on the receipts side and the "sales discount" column on the disbursements side. Show, with illustrations, how entries would be made according to this scheme. Argue that the arrangement shown in the textbook is more rational and efficient. If there were no discount columns in the cash book how would cash payments or receipts involving discounts be recorded?

The Sales Book

10.

"If all sales are entered in a sales book and all receipts in a cash book certain data will be shown in these journals in duplicate." Explain what is meant and state how posting would be accomplished in such a case. Show that it is feasible to avoid such a duplication.

11.

"The simplest sales book has only one column for amounts." Give an illustration of a single-column sales book and show exactly how posting from such a book would be accomplished.

12.

The Wheeler Tool Works manufactures three kinds of machine tools, designated by the symbols X, Y, and Z, and sells to only four customers, A, B, C, and D. All sales are on account.

Show an outline of a sales book especially suitable for this situation. Enter at least two illustrative transactions; and state exactly how posting from this book would be accomplished.

The Purchase Book

13.

The X Company does a wholesale and retail business in motor oils and gasoline. It buys all its oils from one manufacturer, the Y Company, and all its gasoline from the Z Company. There are no cash purchases. Assuming that the X Company wishes to know, as far as possible, the profit made on each class of business, outline a suitable purchase journal for the Company, and enter at least two illustrative transactions. Show exactly how posting from this book would be accomplished and state why the scheme you have prepared is preferable to the use of the simple journal to record these purchase transactions.

14.

The Allison-Smead Co. buys materials exclusively from three houses, the XL Supply Co., Harrey and Roach, and Southern Mfg. Co. Materials are acquired from these concerns in small lots and at frequent intervals, several shipments being received from each source every month. All purchases are on account.

Construct a purchase book suited to the needs of the Allison-Smead Co., working out a device which will obviate the necessity for individual postings to the creditors' accounts.

The Vouchers Payable Register

15.

"The purchase book, so-called, is commonly used as a journalizing medium for transactions covering the purchase of the principal raw materials and merchandise stocks only. The vouchers payable register, on the other hand, is a journal which embraces a record of all acquisitions, on a credit basis, of structures, commodities, and services."

Show that this is the case, ruling up, for illustration, a

vouchers payable register suitable for a small manufacturing corporation and showing how such a book would be used.

16.

Construct a cash book suited to accompany the register which you prepared in Problem 15, and explain its use. What additional journals might be used in connection with these books?

Specialized Ledgers

17.

In a particular office you find books of account with titles as follows: General Ledger; Operating Ledger; Promissory Notes; Customers; Creditors; Stores Ledger; Equipment Ledger; Securities Ledger.

State what you would expect to find in each book.

18.

Describe methods by which the task of posting to the individual customers' and creditors' accounts can be practically eliminated.

Miscellaneous

19.

On July 14, 1921, the general ledger of the Weedmer Auto Co. showed the following condition: Real Estate—debits $8,000; Garage Building—debits $6,000; Warehouse—debits $3,000; Garage Fixtures—debits $2,000; Office Furniture—debits $400; Stationery and Supplies—debits $125; Cars—debits $32,600; Car Sales—credits $16,800; Motorcycles—debits $2,100; Motorcycle Sales—credits $1,050; Tools—debits $600; Parts—debits $4,800; Part Sales—credits $1,250; Gasoline and Oil—debits $2,200, credits $1,600; Repair Service—credits $1,400; Shop Expense—debits $600; Labor—debits $600; Capital Stock—

credits $35,000; Fuel—debits $200; Surplus—credits $3,200; Accounts Receivable—debits $4,600, credits $1,700; Accounts Payable—debits $1,700, credits $5,800; Rent—no entries; General Expense—debits $100; Interest—no entries; Cash—debits $4,450, credits—$1,050; Notes Receivable—debits $6,200, credits $800; Notes Payable—debits $1,900, credits $12,525.

Open these accounts and enter the amounts given. (Form C).

The controlling account, Accounts Receivable, shows total debits $4,600, and total credits $1,700. The specific accounts that make up this amount are as follows: J. R. Ringoen—debits $130, credits $100; W. S. Halverson—debits $232, credits $100; George Herter—debits $265, credits $100; E. H. Adams—debits $390, credits $145; W. A. Benitt—debits $168, credits $45; C. T. Bremecker—debits $275, credits $105; J. N. Perkins—debits $395, credits $190; H. J. Gee—debits $65, credits $10; Addison Grocery Co.—debits $580, credits $170, H. J. Neils—debits $350, credits $100; E. A. Taylor—debits $64; G. E. McCune—debits $145, credits $50; I. S. Goldberg—debits $615, credits $380; P. A. Cook—debits $490, credits $205; E. E. Erickson—debits $100; L. H. Ickler—debits $115; G. P. Meurer—debits $221.

Open a customers' ledger showing the accounts and amounts given above. (Form C).

Accounts Payable in the same problem shows a debit total of $1,700, and credits of $5,800. These amounts are made up of the following specific accounts: Simplex Auto Co.—debits $1,000, credits $3,500; Randler Cycle Co.—debits $350, credits $1,100; Baker Auto Supply Co.—debits $300, credits $650; Puritan Oil Co.—debits $50, credits $550.

Open a creditors' ledger showing the accounts and amounts given above. (Form C).

For the cash book, use Form E for the debit side with special columns as follows: Cash, Accounts Receivable, Notes Receivable, Interest, Repair Service, Gasoline and Oil, Parts, Cars, Motorcycles. On the credit side (Form F) use the following special columns: Cash, Labor, Stationery and Supplies, Accounts

Payable, Notes Payable, General Expense. Reserve one column on each side for sundry items. In this case the cash book is not to be used as the Cash account.

In the purchase book (Form F) open special debit columns for Parts, Motorcycles, Cars, and Gasoline and Oil; and credit columns for Accounts Payable, and Notes Payable.

In the sales book use credit columns for Part Sales, Motorcycle Sales, Car Sales, Gasoline and Oil; and debit columns for Accounts Receivable, Notes Receivable, and Cash. (Form F).

Prepare a trial balance to prove your work thus far.

Using the above described books—in addition to the general ledger (Form C) and a general journal (Form B) for miscellaneous transactions—enter the following transactions, and post to the proper accounts. In this case enter the cash sales in the sales book as well as the cash book. This is often done so that the sales book at any time gives total sales of merchandise, both cash and credit. Post cash only from the cash book and sales only from the sales book.

July 16. Sold gasoline and oil: for cash, $47; on account to J. N. Perkins, $2. Paid on account to the Simplex Auto Co., $1,500. Received on account: from George Herter, $40; from E. H. Adams, $57; from W. A. Benitt, $52. Sold parts: for cash, $16; on account to C. T. Bremecker, $28. Repair work: for cash, $76; on account to J. N. Perkins, $16.

July 17. Sold Simplex chummy roadster to P. A. Cook for $1,200, cash. An extra repair man, G. A. Donald, is hired at $20 per week. Sold gasoline and oil: for cash, $22; on account to George Herter, $4, to H. J. Gee, $3. Received for repair service, $18.

July 18. Notice was received that 4 Simplex touring cars have arrived at the M. C. depot consigned to the firm. I. S. Goldberg paid his note of April 18, $1,200, and interest, $18. Bought, on account, 6 motorcycles from the Randler Cycle Co., $400. Received on account from W. S. Halverson, $32. It was discovered that the charge for repair work to J. N. Perkins on July 16 was an error, as Mr. Perkins paid cash in full for the bill of that

date. Assuming the entry has been posted, make a correcting journal entry.

July 19. Sold 2 Randler motorcycles for cash, $300. Sold Simplex touring car to O. H. Hanft for $1,500. Terms: $500 cash, and a 6%, 60-day note for the balance. Paid the note to Randler Cycle Co., dated May 19, for $500; interest $5.

July 20. Advanced $25 to E. A. Raymond, foreman. Paid for advertising, $20. Leased space in warehouse to Jackson Hardware Co.; a month's rent, $60, was paid in advance. The lease was dated Aug. 1.

July 21. Sales of gasoline and oil since July 17: for cash, $130; on account to Addison Grocery Co., $8. Sales of parts: for cash, $116; on account to Addison Grocery Co., $41. Received cash for repair service for last four days, $197. Repair service on account: to W. A. Benitt, $6; to George Herter, $12; to Addison Grocery Co., $26. Payroll for the week (not including the advance to Raymond), $270. Paid to Simplex Auto Co., $400 on account. Sold Simplex touring car to G. P. Meurer for cash, $1,150. Sold a chummy roadster to H. J. Neils for $1,200. Terms: cash $1,000; balance on account.

July 23. Purchased stationery, $25. Bought 3 tons coal for cash, $30. Bought new tools from Baker Auto Supply Co. for cash, $120. Received on account from E. H. Adams, $25.

July 24. Freight bills were paid, $82. G. E. McCune paid his note for $200, dated June 24, and interest, $1.

July 25. Sold one Randler motorcycle to M. D. Way for $160. Terms: cash, $25; a non-interest bearing 60-day note for the balance. Arrangements have been made with the Simplex Auto Co. for the exchange of $6,000 of notes due today for capital stock in the firm of the same amount. The capital stock was issued and the notes cancelled. Accrued interest on the notes, $360, was paid in cash.

July 26. Paid for advertising, $25. Paid freight bill, $22. Received on account from E. A. Taylor, $64.

July 27. Sold Simplex delivery car to the Addison Grocery

Co. for $1, 300. Terms: $300 in cash, and a 30-day, non-interest bearing note for the balance.

July 28. Repair service for the week amounted to $260, cash. Repair service on account as follows: G. P. Meurer, $4; E. H. Adams, $12; George Herter, $90; G. E. McCune, $44. Cash sales of gasoline and oil for the week amounted to $200. Sales of gas and oil on account as follows: Addison Grocery Co., $7; W. A. Benitt, $4; J. N. Perkins, $8. Cash sales of parts, $69. Parts were sold on account to L. H. Ickler, $45. Payroll for the week, $295. Donated $10 cash to the Red Cross. Bought gasoline and oil from the Puritan Oil Co. on account, $400. Some new lighting fixtures were installed in the garage; cost, $50 cash. Received on account: from H. J. Gee, $6; from P. A. Cook, $30; from I. S. Goldberg, $17; from E. E. Erickson, $50. Sold one second-hand Randler motorcycle, $100.

July 30. Received from J. N. Perkins, on account, $125.

July 31. Cash sales of gas and oil for 2 days, $46. Repair service: for cash, $47; on account to Addison Grocery Co., $27. Received on account from Addison Grocery Co., $25. Paid on account: to Baker Auto Supply Co., $140; to Simplex Auto Co., $500; to Puritan Oil Co., $100. Cash sales of parts, $14. Bought 2 Simplex touring cars on account for $2,000. The store clerk reports that parts to the amount of $100 have been used in repair work. (Charge Shop Expense.) It is estimated that the assets have declined in value as follows: tools, $40 (charge Shop Expense); garage building, $50 (charge General Expense); warehouse, $30; office furniture, $5; stationery and supplies, $50; fuel, $20; motorcycles, $10. Of the accounts receivable, J. R. Ringoen's balance, $30, is considered uncollectible. Paid light bill, $12; telephone bill, $6.

20.

Outline what you consider to be an adequate system of financial records for some business enterprise with which you are familiar. Rule the various forms; write in the necessary headings; and enter and post illustrative transactions.

VI

THE ASSET ACCOUNTS

Account with Fixed Tangible Assets

1.

Distinguish between *tangible* and *intangible* assets. Comment on the following definition:

"Any value which inheres in a business enterprise in its entirety, but which has no specific physical residence, constitutes an intangible asset."

2.

State the three fundamental situations which may require debits in the fixed tangible asset accounts. What are the two principal situations requiring credit entries in such accounts?

3.

Name and explain the principal factors contributing to the depreciation of fixed tangible assets.

4.

(Form B)

Explain the use of valuation accounts to show the depreciation of fixed tangible assets. Give illustrative entries to show how account is kept of fixed property (a) when an item is purchased; (b) when accrued depreciation is recognized; and (c) when a unit is abandoned.

5.

(Form B)

Journalize the following transactions:

(a) Buildings depreciate, $500.

(b) Machinery is purchased for cash, $1,000.

(c) Land is purchased, $5,000. A mortgage for $2,000 is given; the balance is paid in cash.

(d) An appraisal one year after the purchase of the land mentioned in (c) discovers that the land is now worth $500 more than its purchase price.

(e) An adjacent parcel of land is purchased for $1,000 in cash.

(f) Machinery which cost $2,000 (and is carried in the books at that figure) is sold for $1,500.

(g) Office furniture, $500, is purchased on account.

(h) The furniture mentioned above is returned as unsatisfactory.

(i) The land mentioned in (e) is sold for $1,200. Terms: $200 in cash and a 60-day, 6% note for the balance.

(j) Buildings are damaged by a storm to an amount estimated at $3,000.

(k) Because of the introduction of a new device the firm is obliged to discard a machine which has a net book value of $600 and a gross book value of $1,000. Scrap value is $75.

(l) A new wing is constructed on one of the buildings costing $10,000.

6.

(Form B)

Westcott Bros. buy twelve like units of equipment on Jan. 1, 1917, at a cost of $60,000. At the end of the year it is decided that 10% of the cost should be allowed for depreciation. At the end of 1918 a similar allowance for depreciation is made. On

July 1, 1919, because of an accident, it is necessary to scrap one machine. The salvage value (for which cash is received) is $300.

Journalize these transactions. What is the *net* book value of the equipment after the entries have been posted?

7.

Make a list of the fixed tangible assets of some enterprise with which you are familiar.

Accounts with Fixed Intangibles

8.

"In general securities are not in themselves assets; they merely represent or *evidence* valuable rights. A coupon Liberty bond, however, is a *tangible* asset, since, if it is lost or stolen, the original holder has thereby lost his rights. Similarly a bank note payable to bearer, while in a sense merely an evidence of a right against the issuing bank, constitutes a tangible asset since the right is enforceable, by, and only by, whoever happeans to hold the note."

Discuss.

9.

"*Rights* appear in accounting records under duplicate heads—equities in one case, assets in another. A material asset, on the other hand, is never found on more than one balance sheet." Explain.

10.

"There are four bases for distinguishing between fixed and current assets: (1) liquidity; (2) rate of conversion to expense; (3) length of life; (4) technical method of utilization." Discuss. Show that (2) and (4) would always apply to exactly the same cases, but that otherwise each basis has some distinctive application.

11.

(Form B)

The securities ledger of a trust company is controlled in the general ledger by the following asset accounts: Bonds, Mortgages, Annuities, Stocks. Journalize the following transactions, making use of the controlling accounts only:

(a) Bonds are purchased (Pensacola 4's, due 1953) to the amount of $12,015, including brokerage and revenue taxes.

(b) Funds to the amount of $34,000 are invested in first mortgages on New York City real estate.

(c) $15,000 in first mortgage bonds (Harrison Railways 5's) matured today, and cash is received. (Assume that these bonds were carried in the accounts at $15,000.)

(d) Thirty shares of stock in the Pennsylvania R. R. Co. are sold @ 38¼. The broker's commission is 12½ cents per share. This stock was purchased and carried in the accounts @ 61.

(e) At the end of the year it is discovered that there is a net decrease in the value of stock holdings amounting to $43,000.

(f) Three hundred shares of stock in the American Telephone & Telegraph Co. are purchased @ 106¼; the broker's commission is 12½ cents per share.

(g) Bond holdings have appreciated during the year, $31,000.

(h) Mortgages mature and are paid in full to the amount of $16,000.

(i) Annuities are purchased from the Greenwich Insurance Co., $39,000.

(j) The 1917 bonds of the N. Y. River R. R. Co. mature and are paid, $21,000. (These bonds were issued at par and the trust company was an original subscriber.)

(k) The firm invests an estate of \$11,750 in U. S. Steel (preferred) @ 117½ (including commission).

Name several types of business enterprises other than trust companies the assets of which consist largely in securities.

12.

Give illustrations of assets which represent long-term rights to services. With illustrative entries explain the accounting treatment for such items.

13.

Give illustrations of intangible assets which represent the values of privileges conferred by governments and the value of public opinion peculiar to the individual concern.

Functional Classification of Fixed Asset Accounts

14.

Explain the importance of a functional classification of the fixed asset accounts. Show that such a division is not always easily made.

15.

Recently a certain railway company undertook an investigation to determine switching costs in a terminal. Show that such a study would involve an attempt to segregate the asset values devoted essentially to switching operations.

16.

In a certain city a municipal enterprise and a private concern were competing in furnishing electric light and power. The municipal company (which was also the city water company) was cutting lighting rates far below cost to the private plant. The private enterprise contended, however, that the water consumers were paying a large part of the maintenance and depreciation costs which should have been charged to the production of light.

Explain the importance of a proper apportionment of fixed asset values in such a case.

17.

A certain coal company owns sheds, unloading equipment, barn, scales, horses, truck, wagons, harnesses, etc., office building, adding machine, desk, other office equipment, business car, and liberty bonds. It holds a lease giving occupation rights in a coal yard for twenty years.

Prepare a functional classification of fixed asset accounts for this business under three main heads, "yard," "delivery," and "general".

18.

Classify the following under the principal fixed asset headings discussed in Chapter VI of the text: (1) a railroad right-of-way; (2) an oil well; (3) a vineyard; (4) franchise; (5) grain elevator; (6) tanning vat; (7) chemical formulas; (8) passenger coach; (9) timber tract; (10) fishing rights; (11) team of draft horses; (12) U. S. Steel stock; (13) trade-marks; (14) typewriters; (15) carrying cranes.

Accounts with Current Tangible Assets

19.

Classify the following into fixed and current assets: (1) cash; (2) a 2-year promissory note; (3) an insurance premium; (4) a "Liberty" bond; (5) a 10-year real estate mortgage; (6) a patent right; (7) raw materials; (8) foundation of an 18-story building; (9) a Ford car; (10) milk bottles; (11) a lawn mower; (12) show cases. Show that, in several cases at least, your answer involves an assumption with respect to the ownership and use of the asset, and that, under another assumption in these regards, your answer might be different.

20.

The terms "liquid" and "working" are frequently used to designate particular groups of current assets. Explain, with illustrations, what you would expect each of these headings to cover.

21.

Argue that cash, in many of its forms, is not a tangible asset, but only a highly liquid account receivable.

22.

Illustrate the various occurrences which may effect the Merchandise account. The Cash account.

Accounts with Current Rights

23.

How would you classify the "Wages" account of a shoe dealer? Of a manufacturer of locomotives?

24.

(Form B)

Journalize the following transactions:

(a) The firm discounts its 60-day, non-interest bearing note for $1,000 at the bank at 6%.

(b) The firm buys a bill of goods amounting to $1,500 from the Helvetia Grocery Co. A discount of 2% is offered for cash if paid in 10 days. The firm discounts its 30-day note at the bank at 6% to produce the required amount.

(c) A bill of goods, $1,000, is sold to the X Co. Terms, 2/10 n/30. The X Co. accepts the discount 10 days later.

(d) Goods are sold to J. S. Bowles for $700. Bowles pays cash, $200, and gives a 30-day, 6% note for the balance. Three days later the firm discounts Bowles' note at the bank at a 6% rate. On maturity Bowles fails to pay the note. It is discovered that he is bankrupt; and the firm is obliged to take up the note from the bank and pay protest fees of $5.

(e) R. A. Rowley owes the firm $500 on open account. He asks the firm to accept a 60-day, non-interest bearing note for

$500 drawn in his favor by B. R. Jackson to settle the account. The note is accepted and immediately discounted at a 6% rate.

(f) The firm buys a bill of goods from the Helvetia company amounting to $850. Terms, 2/10, n/30. These terms are unsatisfactory and a discount of 3% is finally allowed and accepted.

(g) The firm draws a 30-day draft on a customer (S. A. Berg) for $1,200. The draft is accepted.

25.

Illustrate the various transactions which may occur in connection with an account representing a service (Insurance, for example).

Miscellaneous

26.

(Form B)

The following transactions, it will be assumed, record the history of a particular shipment of drugs in the hands of A. R. Squier, a wholesaler. You are asked to prepare appropriate journal entries.

(1) Merchandise is received from Blair and Davis. It has been bought on account. The price, f.o.b. point of shipment, is $1,000.

(2) Freight on this shipment is paid, $100.

(3) Demurrage charges on the same shipment are paid, $10.

(4) S. A. Davis delivers this shipment to Squier's warehouse and leaves his bill for $20.

(5) These goods are repacked. The labor cost is $50, the cost of cartons and other material is $50. The labor cost is paid in cash; the materials required are taken from stock.

(6) Revenue stamps are purchased for cash, $200. These stamps are affixed to the goods.

(7) These goods, repackaged, are sold on account to S. M. Murfin, a retailer, for $1,600. Shipping costs, paid in cash, total $30.

(8) It is estimated that of the insurance carried the amount of $10 is applicable to this operation.

27.

The following is a list of the fixed assets of Bobbey Bros., carpet manufacturers: Estate of John Bobbey (in a trust fund), Hygiene Fleece Underwear stock, endowment insurance policies covering the partners' lives, office furniture, office appliances, horses, wagons, motor trucks, patents, drawings, carpet mills—buildings, carpet mills—machinery, carpet mills—fixtures and appliances, tools, real estate, goodwill.

Prepare an outline of fixed asset accounts covering these items which emphasizes the important lines of classification stressed in Chapter VI of text.

28.

Hanavan and Co., shoe manufacturers, have the following fixed assets: machinery, tools, parts, lasts, forms, patterns, clicking dies, fixtures, long-term loans to employees, United Shoe Machinery Co. stock, goodwill, office equipment, land and buildings.

Present a suitable outline of accounts.

29.

On June 10, S. B. Smiley orders merchandise amounting to $2,000 from Dryer and Waters, wholesalers. Since Smiley is a new customer they ask for an advance deposit of $500. On June 15, Smiley sends a check for the amount. The goods are received on June 25.

Give the journal entries covering this situation on Smiley's books, and explain any doubtful points.

30.

A manufacturer and wholesaler of furniture, draperies and carpets has current assets on hand at the end of a particular period as follows: customers' balances, accrued interest on bank deposits, deposit on contract to buy a machine shop property, insurance premiums prepaid, advertising paid in advance, departmental supplies, accrued interest on notes, Liberty bond coupons matured but not presented, bond interest accrued but not matured, overpayment of federal taxes, furniture, lumber, draperies, other material, furniture in process, office salaries advanced, bank account, and cash on hand.

Set up an appropriate outline of current asset accounts.

VII

FURTHER CLASSIFICATION OF EQUITY ACCOUNTS

Accounts with Fixed Equities

1.

(Form B)

Journalize the following transactions:

(a) Capital stock amounting to $20,000 is issued for cash at par.

(b) Capital stock amounting to $100,000 is issued in exchange for a factory building worth $50,000, and a patent right worth $50,000.

(c) A promoter of a corporation is given $500,000 of capital stock. In return he turns over to the corporation certain mineral lands valued at $100,000. The balance is considered payment for his services in organizing the company.

(d) The net revenue available to stockholders amounts to $150,000. A dividend of $75,000 is declared, and the balance is carried to surplus.

(e) Bonds to the extent of $100,000 are called in and capital stock of an equal amount issued in exchange.

(f) Bonds of a par value of $150,000 are issued for $175,000.

(g) The bonds in (f) are issued for $125,000.

2.

Distinguish between *fixed* and *current* liabilities. Why is it important that this distinction be emphasized in accounting?

3.

How do the proprietary accounts of the partnership differ from those of the sole-proprietorship? Whose interest consititutes the proprietorship in the case of the corporation? What are the principal proprietary accounts in this case?

4.

"The character of the liabilities is much the same regardless of the *physical* nature of the business. In the case of the assets the situation is quite different."

Explain what is meant and try to show that this is the case.

Classes of Expense and Revenue Accounts

5.

What is the significance of the term *operating net revenue?* What is the essential distinction between a charge to expense and a charge against net revenue?

6.

On the books of A. W. Saxby, a real estate dealer, is an account entitled, "Office Supplies." The bookkeeper charges the cost of all stationery, postage, etc. to this account as acquired. The purchase of such items average about $50 per month. The stock on hand commonly amounts to about $15. The books are closed once a year.

How would you classify this account? Give reasons.

7.

(Form B)

Journalize the following transactions:

(a) The sales of merchandise by a retail store amount to $100,000. Cash sales amount to $60,000, and credit sales to $40,000.

(b) The purchase price of the goods sold (referring to the transaction in (a)) amounts to $55,000.

(c) The salaries of employees amounting to $20,000 are paid.

(d) The amount of fuel consumed is $2,000.

(e) The building has depreciated by $500.

(f) Miscellaneous supplies are consumed, $800.

(g) Advertising services utilized amount to $1,500.

8.

Construct a single expense and revenue account from the entries made in Exercise 7. What is the operating net revenue?

9.

What is the importance of a classification of expense accounts on a functional basis? State some of the difficulties involved in making such a classification. Show that a similar classification of revenue accounts may be more easily made.

10.

Classify the following expense titles under *buying, production, selling* and *collection, administration,* and *miscellaneous*: outward freight, express, postage, fire loss, posters and price lists, directors' fees, donations, watchmen's wages, entertainment of customers, buyers' salaries, overtime bonuses to operatives, advertising, experimental expense, maintenance of employees' houses, delivery expense, legal expenses, insurance on factory and equipment, other property insurance, workmen's compensation insurance, audit expenses, direct material cost, factory supplies consumed, miscellaneous office supplies, productive labor, factory supervision, estimated bad accounts, collection agency charges, heat and light, power service, miscellaneous factory expense, office salaries, officers' salaries, taxes, salesmen's salaries, salesmen's commissions, repairs to factory, depreciation of factory, maintenance of office, depreciation of office, store repairs, depreciation of store equipment, maintenance of store equipment, depreciation

of machinery, depreciation of office furniture, wrapping and crating supplies, wages of wrappers and shippers, employees' pensions, depreciation of drawings and patterns, salaries of managers, and billing customers expense.

Discuss any doubtful cases.

Net Revenue and Surplus Accounts

11.

(Form B)

Journalize the following transactions:

(a) The operating net revenue shown as a result of the transactions in Exercise 7 is carried to the Net Revenue account.

(b) Interest accrued on mortgages payable amounts to $3,500.

(c) Interest received on bank deposits amounts to $250.

(d) Goods amounting to $2,000 were stolen in transit.

(e) The directors declare a 6% dividend amounting to $3,000.

(f) The sum of $5,000 is appropriated as a reserve for contingencies.

(g) The balance of net revenue, $6,950, is transferred to surplus.

12.

Construct a single net revenue acount covering all of the adjustments involved in Exercise 11.

13.

Show why rent debits and credits belong in the expense and revenue rather than the net revenue classifications.

Give several reasons for treating taxes as a net revenue charge rather than an expense charge. Show that there are objections to this treatment also.

14.

The Expense and Revenue account of the B Co., after all expenses and revenues are transferred thereto, shows, in a particular period, an excess of credits of $36,000. Give the journal entries necessary to transfer this balance to Net Revenue.

The directors now authorize the recognition of accrued income and profits taxes, $6,000; declare a dividend of $12,000; authorize a charge of $3,000 for accrued interest on mortgages; and order the balance of Net Revenue transferred to Surplus. Show the journal entries necessary to give effect in the accounts to these actions of the board.

15.

Classify the following account titles under the headings expense, revenue, net revenue, and surplus:

Raw Materials (utilized).
Labor.
Taxes (paid).
Telephone (rentals paid for services furnished).
Advertising (circulars used).
Repairs to Equipment.
Repairs to Buildings.
Accounts Receivable (found to be worthless).
Salaries of Officials.
Supplies (used).
Rent (received).
Rent (paid).
Surplus.
Reserve for Additions and Improvements.
Interest on Notes Receivable.
Interest on Notes Payable.
Sales.

Accounts with Current Liabilities

16.

What are *accrued* liabilities?

17.

Show a method by which the *contingent* liability arising when customers' notes are endorsed and banked may be recognized. (See page 129 of the text.)

18.

Scrutinize the liability side of the balance sheet shown in Appendix C of the text, pages 668-674.

19.

At the end of the year the books of a certain manufacturer and wholesaler show current liability items as follows: loans from employees, bills of exchange outstanding, merchandise creditors' balances, commissions and bonuses payable, full paid sales undelivered, estimated income and profits taxes, accrued interest on mortgage, salaries and wages payable, notes payable, printer's bill, general manager's salary due, bank overdraft, deposits made on account of undelivered sales, state corporation tax accrued, Samuelson & Co.—prepayments on 6-year sublease (expiring in one year), D. W. Wright—damages assessed, and amounts due to consignors.

Set up a detailed outline of current liability accounts for this case.

20.

"In general American business is conducted on a credit basis; that is, goods are delivered in advance of payment. In some cases, just the reverse order is followed, however. Transportation companies, amusement houses, insurance companies, etc., and certain retailers, such as milk dealers, frequently receive payment from customers in advance of the furnishing of the particular commodity or service involved. This sort of transaction, payment before delivery, leads to a special liability on the books of the vendor, a liability of which the chief peculiarity lies in the fact that it is finally liquidated with commodities or services rather than cash."

Explain, giving a concrete illustration.

VIII

CLOSING AND INTERPRETING THE ACCOUNTS

The Trial Balance

1.

Explain the construction of the trial balance. What is its function?

2.

"The trial balance has very distinct limitations. In the first place it will not disclose the complete omission of a transaction. Further, it does not prove that transactions have been properly analyzed. Still further, it will not disclose a numerical mistake which has an equal effect on both ledger columns."

Explain, giving illustrations.

3.

(Form B)

Prepare a trial balance from the ledger of John Reed, proprietor, as of February 27 (Exercises 2, 3, and 4, Chapter V).

4.

(Form B)

Take a trial balance directly from the journal of J. B. Preston as of Oct. 25 (Exercise 6, Chapter V).

5.

(Form B)

Arrange the following ledger balances into a trial balance:

Real Estate	$10,000
Buildings	15,500
Fixtures	2,500

Notes Payable	2,100
Mortgage Payable	5,000
Notes Receivable	800
Accounts Payable	3,400
Merchandise Purchases	16,900
Merchandise Sales	26,300
Delivery Equipment	600
Fuel	300
Miscellaneous Expense	1,200
Accounts Receivable	3,900
Interest Received	100
Interest Paid	600
Rent	400
Proprietors	18,200
Wages and Salaries	1,200
Cash	2,000

6.

(Form B)

Take a trial balance from the ledgers prepared in Exercise 19, Chapter V.

THE NECESSITY FOR INVENTORY AND APPRAISAL

7.

Explain fully why the trial balance does not ordinarily represent the exact current status of the enterprise.

8.

Explain the significance of, and show the necessity for, the *accounting period.*

9.

"Accounting might perhaps be defined as the mechanism by which an attempt is made to make a *periodic* classification of the financial history of the business enterprise. The emphasis upon

the period is responsible for virtually all accounting analysis. If the significant period were 50 years in length, for example, there would be no such thing as accounting in the ordinary sense."

Comment on this statement.

10.

State with illustrations the different bases for taking inventories. In what cases is a perpetual inventory feasible?

Closing Accounts with Fixed Assets

11.

Delivery Equipment

Jan.	1	Inventory		$500
	16		J 32	150

The above statement represents the Delivery Equipment account of a certain enterprise at the time of taking the trial balance at the end of the year. The management decides that the depreciation for the year amounts to $120.

Close this account (giving the necessary journal entries) and bring down the proper balance for Dec. 31.

12.

The Machinery account of the A. Co. has a debit balance Jan. 1 of $49,000. The Allowance for Depreciation of Machinery account has a credit balance on the same date of $6,200. On Dec. 31 the value of the machinery on hand is estimated at $38,300.

Give the entries necessary to close these accounts and exhibit them as they would appear when closed.

13.

(Forms B and C)

The X Co.'s Plant and Factory Equipment account shows a debit balance Dec. 31, 1918, of $48,000. At this time Allowance for Depreciation shows a credit balance of $3,000. On July 1, 1919, new property is acquired at a cost of $6,000. On Sept. 1,

1919, one unit of the plant (with a gross book value of $8,000 and a net book value of $6,000) is dismantled. The cost of demolition is $200 (which represents the wages of workmen already included in the regular payroll) and the salvage is sold to a junk dealer for $800. The chief accountant decides that the proper depreciation rate to use in closing the books Dec. 31, 1919, is 10% per annum of gross book values.

Show journal entries giving effect to the above, and exhibit the two accounts mentioned as they would appear when closed Dec. 31, 1919.

In the same ledger on Dec. 31, the Office Equipment account shows total debits of $2,200 and no credits; the Allowance for Depreciation of Office Equipment shows credits of $220 and no debits.

Using a depreciation rate of 10% on gross book value, give the journal entries necessary to recognize the depreciation expense for the year and exhibit the two accounts mentioned as they would appear when balanced.

Materials, Sales and Subsidiary Accounts

14.

(Forms B and C)

You are handed the following summary information regardin a month's business of a manufacturing and wholesale canning company:

Materials on hand Jan. 1	$27,280
Finished goods on hand Jan. 1	11,500
Purchases of materials during January	29,400
Defective materials returned	250
Purchase discounts secured through cash payments	560
Other rebates and allowances on materials	300
Sales of finished goods during the month	31,000
Discounts on sales	420

Goods returned	190
Freight and demurrage charges on materials	780
Materials on hand Jan. 31	32,000
Finished goods on hand Jan. 31	6,700

Prepare an exhibit of accounts showing how you recommend that this information be recorded. Give all the journal entries necessary to close these accounts, and rule the accounts as closed.

15.

In a complex retail or wholesale enterprise where several departments are involved, or in any manufacturing enterprise where several production stages as well as many departments are necessary, what reasons can you see for the use of intermediate summary accounts into each of which are closed a number of subsidiary accounts? (The closing of such accounts as In-Freight, Payroll, etc., into a general Merchandising account is an illustration of the use of such an account.)

16.

(Forms B and C)

The B. Co. expends for labor during August $22,000; for materials, $47,000. All other costs incurred including accruals such as depreciation total $26,000. The inventories August 1 are as follows: Materials, $10,000; goods in process, $8,000; finished goods, $16,000; miscellaneous supplies etc., $2,000. Sales during the month total $81,000. On Aug. 31 it is estimated that materials on hand amount to $13,000; the material cost of goods in process is $6,000; and the material cost of finished goods on hand is $12,000. The labor cost of goods in process August 31 is $5,000; and of finished goods, $7,000. The inventory of miscellaneous items August 31 is $2,400. It is estimated that of the item of "other costs" there should be charged to goods in process, $3,000, and to finished goods, $3,500.

Show by means of entries, accounts, and explanations how this situation would be handled August 31.

17.

(Forms B and C)

The X Chemical Co. begins operations Jan. 1, 1921. During the month labor costs incurred total $15,000; materials acquired total $10,000; other current commodities and services received amount to $2,000. All commodities and services acquired are considered to be bought on account. Payments are made as follows: payroll, $14,000; materials, $2,000; other current commodities and services $2,500 (of this amount $800 represents payment in advance for services not yet received). All of these values received are converted into finished goods except materials, $3,000, and "other current commodities and services," $500. No work in process classification is recognized. On Jan. 31 finished goods on hand have a cost value of $2,000. Sales for the month, all on account, total $26,000; collections amount to $7,000.

Prepare journal entries covering, in summary form, the above operations. Rule skeleton accounts and post. Assuming that the Company has no fixed assets and no selling or general expenses not included in the above data, what was the net revenue for January?

18.

(Forms B and C)

A newly organized company buys materials during the first accounting period with an invoice price of $35,000. Freight charges on these goods total $1,500. Discounts on invoice prices to the amount of $400 are secured by making prompt payments. Materials are taken from the store room and put in process during the period to the amount of $28,000. The payroll totals $12,000, and factory overhead amounts to $1,000 for the period. Sales total $60,000. At the end of the period, it is determined that goods in process have a material cost of $3,000, a labor cost of $1,800, and an overhead cost of $100. All finished goods have been shipped.

Set this situation up in accounts, using the following titles:

Materials, Freight, Purchase Discounts, Goods in Process, Labor, Factory Overhead, and Sales. Close these accounts, giving closing entries, into an account entitled Manufacturing and Trading. Exhibit this account and give the entries necessary to close it.

19.

(Forms B and C)

Bagdon Baking Co. has no cost system and does not attempt to keep a continuous inventory. The books are closed each month, an inventory being taken at that time. On Dec. 1, 1920, the Company's Materials and Supplies account showed an inventory balance of $1,200; while Finished Stock account on the same date showed product ready for sale valued at $250. There was no work in process. During December purchases of materials (which were charged to Materials and Supplies) totaled $8,000 and sales amounted to $25,000. Materials on hand Dec. 31 were priced at $1,500, finished stock at $50, and there was again no work in process.

Give the journal entries necessary to close Materials and Supplies, Finished Stock, and Sales accounts on Dec. 31, and show these accounts as they would appear when closed.

Closing Merchandise Accounts

20.

(Forms B and C)

The balances of the merchandise accounts of the Stillwater Drygoods Co. on Sept. 30 appear as follows: Merchandise Inventory, $47,400 (Sept. 1); Merchandise Purchases, $26,900; Merchandise Sales $38,700. Merchandise Cost shows no balance. The inventory Sept. 30 is $41,900.

Give the journal entries necessary to close these accounts. Post these entries (as far as they affect the merchandise accounts) and rule and close the accounts.

Record the same information as above in a single Merchandise account, and give the closing entries necessary when this procedure is adopted.

21.

Real Estate

Jan. 1	Inventory		$98,000	Jan. 9		J 17	$13,000
6		J 16	21,500	22		J 18	72,000
20		J 18	4,900	26		J 19	7,500
29		J 19	11,800				

The above statement represents the Real Estate account of the Roggers Development Co. at the time of taking the trial balance. An appraisal shows the parcels of real estate remaining unsold to have a value of $52,000, although the cost price was but $49,000.

Close this account, making all necessary journal entries.

22.

A retailer (beginning business May 1) buys goods during May with an invoice price of $7,500. Freight and cartage charges amount to $800. The cost of unpacking, shelving and otherwise preparing goods for sale is $350. Clerk hire and general expense for May amounts to $200. On May 31 an inventory is taken which shows goods on hand to the amount of $5,000, invoice price. Is this inventory the correct figure to use in closing the accounts? Explain fully.

23.

A peddler starts for town with a load of potatoes which cost him $90. On the way he buys 10 bushels more at $1.25. He sells during the day 70 bushels at $1.60. At night he has left in his wagon potatoes amounting to $30, at cost.

Set up this information in a single account. Ignoring the depreciation of equipment, cost of horse feed, etc., what was the peddler's profit for the day?

24.

(Forms B and C)

On June 30 the merchandise inventory of the A Co. is \$370,000. Purchases for the next 6 months total \$710,000, gross, but not including freight charges. Inward freight is paid during this period of \$12,000; of this amount \$1,000 is applicable to goods received prior to June 30; on Dec. 31 there are no unpaid freight charges outstanding. Goods are returned to jobbers as unsatisfactory, \$3,000. Rebates and allowances on purchases during this period amount to \$15,000. Sales, in gross, total \$980,000. During the period allowances to customers amount to \$18,000. The merchandise inventory Dec. 31 is \$340,000.

(a) Prepare journal entries covering the above. (Use separrate accounts for all important elements).

(b) Using a Merchandise Trading account give the journal entries necessary to close, as of Dec. 31, the various accounts relating to merchandise which you have used (including the inventory account).

(c) Give the journal entries to close Merchandise Trading and exhibit this account as it would appear when closed Dec. 31.

25.

(Form B)

The Cobb & Corbett Co. keeps a single merchandise account. On Dec. 31, 1920, the trial balance shows this account with a credit balance of \$5,000. Give the journal entries necessary to close this account, (1) assuming the current inventory to amount to \$10,000; (2) assuming no inventory.

Do the same assuming the trial balance shows a debit balance of \$50,000 for Merchandise. Repeat, assuming no balance in the trial balance.

26.

(Forms B and C)

The following is a section of the trial balance of the Gordon-Summers Co., wholesalers, on Dec. 31, 1920, at the conclusion of a year's operations:

	Dr.	Cr.
Purchases	$75,000	
Purchase Returns		$ 1,000
Sales		100,000
Purchase Discounts		1,500
Sales Discounts	2,500	

Stock on hand at this time, priced at cost, amounts to $20,000.

Using, in addition to the above titles, Inventory, Trading, and Expense and Revenue accounts, give the necessary closing entries to cover this situation, and rule up and exhibit the accounts given as they would appear when closed.

Closing Accounts Receivable

27.

(Forms B and C)

On Jan. 1, 1920, the ledger of R. A. Downing, after closing, showed Accounts Receivable with a balance of $3,000 and Allowance for Bad Debts with a credit balance of $1,000. During 1920 credit sales totaled $100,000; collections amounted to $90,000; customers' accounts were written off as worthless, $800. On Dec. 31, 1920, it is decided that 1% of the credit sales for the year should be treated as uncollectible.

Give journal entries covering this situation and show the two accounts named as they would appear when closed, Dec. 31, 1920.

28.

(Forms B and C)

The trial balance of A & B, after a year's operation, shows outstanding customers' accounts amounting to $30,000. 80% of the total credit sales for the period have been collected, and the auditor estimates that 5% of these sales are uncollectible.

Using a valuation account, give the journal entries necessary

to close Accounts Receivable on this basis and show both Accounts Receivable and Allowance for Uncollectibles as these accounts would appear when closed.

The following month it is decided that the account of X, a customer, who has owed a balance of $1,000 for six months, should be written off as worthless, as he is found to be a bankrupt. Journalize.

Six months later X receives an inheritance and pays the account mentioned above in full with interest for one year at 7%. Journalize.

29.

(Forms B and C)

On June 30 the Accounts Receivable account of the A Co. shows a balance of $210,000; the Allowance for Doubtful Accounts shows a credit balance of $3,200. During the next 6 months goods are sold on account to the amount of $800,000; accounts are collected to the amount of $810,000; and specific accounts are written from the books as worthless totalling $5,100. On Dec. 31 it is decided that the proper charge to revenue for the period because of doubtful accounts is 1% of the total credit sales.

Give journal entries covering the above transactions (including closing entries) for the period July 1 to Dec. 31, and exhibit Accounts Receivable and Allowance for Doubtful Accounts as these accounts would appear when closed, Dec. 31.

Closing Other Current Accounts

30.

In the trial balance of the Arblock Trading Co. on Dec. 31, the Petty Cash account shows total debits of $3,700 and total credits of $3,150. A count of cash discloses a shortage of $15.

Exhibit this account as it would appear when closed and show closing journal entries.

31.

The X Co. keeps a Wages and Salaries account. On Dec. 1 this account shows a credit inventory of $300, and a debit inventory of $200. Total debits during the month of December amounted to $3,800. On Dec. 31 wages were accrued but unpaid to the amount of $280. Salaries prepaid amounted to $200.

Give all closing journal entries, and present this account as it would appear when closed.

Under what conditions would it be proper to consider the labor cost *incurred* within a given period as precisely the labor *expense* of that period?

32.

The Hoover Manufacturing Co. operates in a rented building. One floor is sublet for storage purposes to the Jones Overall Co. One account is used to record all rent transactions. On Sept. 1 this account shows a debit inventory of $50, and a credit inventory of $350. During September the Hoover company pays $400 on its lease and receives $75 from its sublease. On Sept. 30 there is rent accrued but unpaid against the company amounting to $200, and in its favor $25.

Rule this account and close as of Oct. 1, making closing entries.

How much per month does the Hoover Mfg. Co. pay for the use of the building? How much does the Jones Overall Co. pay per month?

33.

(Forms B and C)

The Johnson-Blair Co. pays one of its old salesmen, J. W. Hewlett, a salary of $10,000 per year. In addition he is to receive a commission of 2% on the gross amount of business for which he is responsible and an extra bonus of $1,000 if his sales exceed $250,000 per year. The Company keeps two accounts with Hewlett entitled. "J. W. Hewlett—Salary," and "J. W. Hewlett—Commissions and Bonuses." On Jan. 1, 1920, these accounts

showed that Hewlett had overdrawn his regular salary by $1,500, but that the Company still owed him $3,000 on account of commissions and bonuses. In 1920 Hewlett's sales total $275,000. He is paid cash during the year of $13,000 (of which $10,000 is charged to his salary account); he buys 250 shares of the Company's common stock at $10 per share and instructs the treasurer to charge the cost of same to his commission account; and on Dec. 31, 1920, he accepts preferred stock at par ($100) for the amount of the net balance due him at that date.

Give journal entries covering this situation during and at the close of the year and show the two accounts named above as they would appear when closed, Dec. 31, 1920.

34.

The Saracen Steel Co. sublets the top floor of its main building to Johnson Bros. at $200 per month. The Company also leases a warehouse from T. O. Smalley at $200 per month. On Jan. 1, 1919, rent was accrued in favor of T. O. Smalley, $200. On Dec. 31, 1918, Johnson Bros. advanced three months' rent, $600. During 1919 the Saracen Company pays $2,800 to Smalley and receives $1,400 from Johnson Bros.

The bookkeeper of the Saracen Steel Co. records this information in a single account, "Rents," showing accruals at the beginning of the period, payments and receipts during the year, and accruals Dec. 31, 1919. Present this account for the year 1919 as it would appear when closed, Dec. 31, 1919. What effect does this account have upon the Company's net revenue for 1919?

35.

(Forms B and C)

Making use of four accounts, Building Service—Cost, Building Service—Revenue, Rent Payable, and Rent Receivable, instead of the single account, show how the data of Problem 32 would be handled. Give journal entries and present the accounts, closed.

36.

The Burr Novelty Co. manufactures three patented articles on which it pays Y, the inventor, a royalty of 10% of gross sales. The Company closes its books once a year. On Jan. 1, 1920, the Y Royalties account shows advances to Y of $500. During 1920 sales of the three articles total $50,000. In the trial balance on Dec. 31, 1920, the Y Royalties account shows a debit balance of $4,000.

Give the closing entries for this account, and exhibit it as it would appear when closed. (Assume that, during the year, the bookkeeper makes no record of the accruing cost and liability).

37.

The following account is found in the ledger of a small manufacturing and retail company:

General Expense

June	1	Inventory	$280	June	1	Inventory	$ 30
	6	Insurance	50		25	Interest	50
	7	Advertising ...	10				
	7	Postage	20				
	7	Stationery	20				
	12	Rent	300				
	15	Commissions ..	60				
	17	Freight & Cart.	80				
	18	War Relief ...	100				
	19	Interest	25				
	20	Loss by Fire...	130				

Examine this statement critically, indicating the various accounting elements involved. Under what circumstances might the use of such an account be justified? What, in such a case, would be a more appropriate caption than "General Expense"?

Summary Accounts for Sundry Assets and Liabilities

38.

A firm's coal acount shows inventory at the beginning of the period $300, and purchases during the period of $1,300. The new inventory at the time of closing is $600.

Using a Sundry Assets account show the entries necessary to close this account and to reopen it at the beginning of the next period.

39.

(Form B)

Among the A Co.'s inventories on April 30 are found the following items: wages accrued, $300; rent unpaid, $125; advertising prepaid, $75; interest receivable, $84; interest payable, $850; insurance unexpired, $220.

Journalize, making use of a Sundry Assets and a Sundry Liabilities account.

40.

The Allison Mfg. Co. pays the freight charges on all goods shipped to regular customers. On Nov. 1, the Freight account shows a credit inventory balance (freight bills unpaid) amounting to $1,650. Actual payments on account of outward freight charges during November total $8,200. Accumulated unpaid freight bills on Nov. 30 amount to $400.

Prepare exhibits of the Freight account for November as it would appear when closed and give the necessary closing entries according to each of the following methods, (1) showing the accrued liability in the Freight account itself; (2) carrying this liability to a Sundry Liabilities account.

Closing the Expense and Revenue Accounts

41.

"While the business man commonly thinks of wage payments as expense when incurred, such payments in the case of a manufacturing enterprise at any rate are not, strictly speaking, costs of producing *current* revenue."

Explain. Show that few accounts appearing in the typical trial balance, taken before any adjustments have been made, are genuine expense accounts.

42.

In the trial balance of the Doonby Box Co. you find among other items the following:

	Dr.	Cr.
Commissions	$4,500	
Payroll—Shipping Department..	3,700	
Out-Freight, Express and Postage	1,100	
Sales		$78,000
Customers' Entertainment	500	

Give the journal entries necessary to close these accounts.

43.

In closing the books of the Green-Black Co., the accountant for the Company opens up several temporary expense accounts. Examples are, Insurance Expense, Fuel Cost, and Depreciation of Building.

Give illustrative entries showing how the accounts named would be set up and finally closed. What function can be served by such temporary accounts.

Closing the Net Revenue and Equity Accounts

44.

Define carefully and illustrate each of the following terms: loss; expense, revenue; net revenue; distribution of net revenue; surplus.

45.

(Form C)

The following account is taken from the books of an electric light and power company:

Profit and Loss

Wages and Salaries	$ 9,800	Balance	$10,020
Supplies	13,300	Com. Power Sales	22,000
General Expense	11,600	Commercial Lighting	12,400
Depreciation of Plant	8,900	Street Lighting	12,960
Interest on Bonds	4,100	Miscellaneous Revenue	7,400
Dividends	2,000	Interest Earned	390
Loss on Aband. Prop.	1,700		
Balance	13,770		
	$65,170		$65,170
		Balance	$13,770

Criticize, preparing an exhibit of accounts which gives a more logical presentation of this information.

46.

A certain firm uses one Interest account to record all interest transactions. On Sept. 1 this account shows a debit inventory of $55 and a credit inventory of $70. During the month interest was paid by the firm on notes and mortgages amounting to $250; interest was received on notes and bank balances amounting to $130. On Sept. 30 it is found that interest is accrued and unpaid: on notes, $75, on mortgages, $40. Interest accrued on notes receivable amounts to $30, on bank balances, $25.

Rule this account and close, giving journal entries.

47.

The Exeter Co. has gross revenues for the month of December amounting to $75,000; gross expenses total $54,000. The directors decide to declare a dividend of $20,000, and the balance of net revenue is transferred to the Surplus account.

Journalize, using Expense and Revenue, Net Revenue, and Surplus accounts.

48.

The capital stock of a small corporation is owned entirely by three individuals—A, B and C. A is president, B, secretary-treasurer, and C is general manager. Because of the heavy tax on corporate incomes the officers wish to make a conservative showing of net revenue. It is decided to charge salaries to expense as follows: A, $1,000; B, $1,500; and C, $2,500. It is further agreed that no funds shall be withdrawn for the purpose of paying these salaries. Prepare journal entries giving effect to this procedure in the accounts, and explain the significance of the transaction fully.

Later, capital stock is issued to the various officers in appropriate amounts covering the undrawn salary balances. Give journal entries and discuss.

49.

(Forms B and C)

X, a speculator in securities, uses but five accounts for his business affairs: (1) Securities; (2) Miscellaneous Expense; (3) Profit and Loss; (4) Cash; (5) X, Capital. The Securities account is charged with the cost of all purchases, including commissions, and is credited with gross sales less brokerage. Assessments, dividends, interest, etc., are charged or credited, as the case may be, directly to Profit and Loss. Miscellaneous Expense is charged with postage, stationery, cost of market reports, etc. Once a year X takes inventory of securities on hand at cost (ignoring accrued interest and dividends) and figures his profit or loss, transferring to his capital account any balance of the Profit and Loss account which is not drawn.

His trial balance on Dec. 31, is as follows:

Cash	$44,800	
Miscellaneous Expense	200	
Securities		$ 5,000
Profit and Loss		3,000
X, Capital		37,000
	$45,000	$45,000

The inventory of securities on hand Dec. 31, 1920, is $10,000. X withdraws one-half of his profits in cash for living expenses (which are not recorded in his business accounts), and the balance is transferred to his capital account.

Prepare the journal entries necessary to close X's accounts as of Dec. 31, 1920, and show all five acounts as they would appear when closed. In exhibiting the Securities account assume purchase and sale figures for the year consistent with the data of the trial balance.

50.

(Forms B and C)

A and B, equal partners, start business with a stock of goods worth $1,200. During the first month additional goods are bought on account from the X Co. to the amount of $2,800. Sales, all for cash, total $3,000. Rent is paid $210 (this covers the current month and two months in advance). The salesman's salary is paid, $150. Miscellaneous expenses are paid, $40.

Set up this data in skeleton accounts using the following titles: (1) A, Capital; (2) B, Capital; (3) Merchandise Inventory; (4) Purchases; (5) X Co.; (6) Sales; (7) Cash; (8) Rent; (9) Salaries; (10) Miscellaneous Expenses.

At the end of the month merchandise on hand amounts to $2,200. Using (11) an Expense and Revenue account and (12) a Net Revenue account, close the accounts of this business, assuming that the partners withdrew $200 each in profits and that the balance of Net Revenue is carried to the partners' capital accounts. (Give journal entries, post, and rule the accounts as closed.

IX

THE PREPARATION OF STATEMENTS

1.

Name the three important accounting statements and explain their uses. State particularly whose interests are to be served by each one.

The Expense and Revenue Statement

2.

C. J. Rankin, Trial Balance, April 30, 1916

Store Equipment	$ 660.00	
Delivery Equipment	1,380.00	
Cash	258.40	
Notes Receivable	315.00	
Mdse. Inventory	2,120.00	
C. J. Rankin, Capital		$4,130.00
Notes Payable		1,025.00
Purchases	2,297.00	
Sales		2,430.75
Store Salaries	313.00	
Advertising	5.20	
Delivery Expense	70.20	
Rent	110.00	
Insurance	54.00	
Heat and Light	16.20	
General Expense	14.85	
~~Cash Discounts on~~ Purchases		~~16.60~~
Accounts Receivable	732.50	
Accounts Payable		744.00
	$8,346.35	$8,346.35

Inventories:

Merchandise	$2,082.27
Salaries earned but unpaid:	
Sales clerks	15.67
Driver	5.00
The insurance balance represents payment for one year from March 1, 1916.	
Delivery equipment	1,360.00
Store equipment	660.00

Prepare an expense and revenue statement in account form (Form C). In report form (Form B).

3.

(Form B)

The following trial balance is taken from the ledger of S. J. Burdick at the close of one month. The merchandise inventory is $3,080.

	Dr.	Cr.
Equipment	$ 980	
Cash	820	
Merchandise	4,200	
Accts. Receivable	338	
Accts. Payable		$1,850
S. J. Burdick		3,250
Salaries	130	
Rent	60	
Heat & Light	12	
General Expense	45	
Sales		1,485
	$6,585	$6,585

Prepare an expense and revenue statement in report form.

4.

(Form B)

Trial Balance of Andrew Jackson as of June 30, 1914.

Mdse. (per inventory Jan. 1)	$ 7,000	
Cash (on hand and in bank)	400	
Customers' Accounts	3,200	
Creditors' Accounts		$ 2,400
Purchases	13,500	
Sales		18,000
Salaries	1,840	
Rent	820	
Advertising	500	
Heat and Light	300	
Insurance (Premium for year 1914)	100	
General Expense	400	
Andrew Jackson, Capital		7,660
	$28,060	$28,060

Inventory of Mdse. on hand June 30	$7,400
Coal on hand	40
Salaries unpaid June 30	45

From the preceding trial balance and additional data, present an expense and revenue statement in report form.

5.

(Form B)

Trial Balance—Month of March—1914.

Equipment	$ 650	
Cash	150	
Notes Receivable	50	
Unexpired Insurance	36	
Proprietor		$1,000
Notes Payable		200

Salaries	128	
Rent	40	
Heat and Light	4	
Merchandise Inventory	400	
Purchases	700	
General Expenses	6	
Sales		800
Accounts Receivable	150	
Accounts Payable		314
	$2,314	$2,314

Mdse. Inventory	$520
Salaries Accrued	10
Expenses Accrued	3

Prepare an expense and revenue statement in report form.

6.

(Form B)

Trial Balance, January 31, 1915.

	Dr.	Cr.
Real Estate	$ 4,000	
Store Equipment	500	
Stable Equipment	800	
Cash	400	
Notes Receivable	300	
A. Customer	200	
B. Customer	150	
C. Customer	50	
S. Creditor		$ 500
M. Creditor		800
N. Creditor		700
Notes Payable		3,800
H. Henry, Proprietor		15,000
Merchandise Inventory (Jan. 1, 1915)	14,400	
Sales		9,000

Purchases	7,000	
Salaries	820	
Advertising	250	
Delivery Expense	180	
Rent	360	
Heat & Light	46	
Insurance	144	
General Expense	260	
Cash Discount		60
	$29,860	$29,860

Additional Data:

Merchandise inventory	$14,670
Feed for horses	20
Salaries accrued	40
Delivery boy's salary accrued	10

Insurance represents payment for one year.

Prepare an expense and revenue statement in report form.

7.

(Form B)

The retail merchant usually inventories his stock of goods at the invoice price either of the date of purchase or of the date of inventory. This method fails to take into account the fact that a considerable part of the "expense" outlays may be reasonably charged to the unsold goods. Explain the effect of this practice on the current expense and revenue statement. Can you justify current practice in this regard?

8.

Prepare classified expense and revenue statements from the analysis sheets worked out in Problems 28, 33, 34, and 35, following.

The Net Revenue and Surplus Statement

9.

"The net revenue statement reflects the financial policy of a corporation, particularly in respect to the distribution of risk among the permanent investors." Explain.

10.

(Form B)

Prepare a net revenue statement from the following data:

Expense and Revenue has a credit balance of	$4,380
Interest Paid shows a balance of	260
Interest Received has a balance of	50
Dividends were declared and paid during the period	750
Dividends are declared	750
Taxes shows a debit balance	180
Taxes are accrued but unpaid	570
Interest on notes payable is accrued	120
Interest receivable is accrued	15
Bond Interest shows a debit balance	300
Bond interest is accrued	150
Rent receivable accrued	40.

11.

"In the case of the sole-proprietorship and partnership there are usually few net revenue and surplus items. In fact the current practice of combining all expense, revenue and net revenue charges and credits into a single "profit and loss" statement is not without justification in such cases."

Argue in support of this statement. Show, on the other hand, that quite a different conclusion should be reached in the case of the corporation.

12.

(Form B)

Prepare a net revenue and surplus statement from each of the columnar sheets you work out in Exercises 20, 26, 27, and 28, following.

The Balance Sheet

13.

This statement is frequently made by accountants: "the balance sheet is the most important financial statement." Explain the construction of the balance sheet and show why the statement in the quotation marks is true.

14.

(Form C)

Prepare balance sheets, in account form, for problems 2 to 6, above.

15.

(Form B)

Trial Balance of John Smith as at March 31, 1914, after one month's operation.

Store and Office Equipment	$ 289.85	
Delivery Equipment	275.00	
Cash	1,079.04	
Accts. Receivable	320.00	
Notes Receivable	100.00	
Notes Payable		$ 3,000.00
Accounts Payable		923.50
John Smith, Capital		5,000.00
John Smith, Personal		10.00
Sales		1,601.75
Purchases	8,085.00	
Salaries	190.00	

Delivery Expense	91.00	
Rent	60.00	
Heat & Light	36.00	
Insurance & Taxes	40.00	
Office & Store Supplies	46.00	
Interest on Notes Payable	10.00	
General Expense	1.60	
Cash Discount on Purchases		88.24
	$10,623.49	$10,623.49

Supplementary Data:

Merchandise Inventory, March 31	$6,850.00
Insurance premium has been paid for one year	
Inventory of office supplies	30.00
Salaries accrued, but not paid	10.00
Light bill for month unpaid	8.00
Salary due delivery boy	4.00
Coal on hand	15.00

The balance of Notes Receivable represents a single note received on March 11, and bearing 6% interest.

Prepare expense and revenue statement and balance sheet in report form.

16.

(Forms B and C)

The following is taken from the daybook of J. A. Ralston, a retailer. Journalize these data, showing account titles and amounts but omitting explanation.

Jan. 1. J. A. Ralston invested in business, cash, $1,500, and goods, $2,000; rent was paid, $40; merchandise was bought on account from Wilson & Co., $1,200.

Jan. 2. Cash sales, $300; office stationery and supplies were purchased for cash, $40; goods were sold to A. H. Campau to the amount of $250, he paying $50 down; office furniture and typewriter were purchased for cash, $100.

Jan. 3. Payment of $500 was made to Wilson & Co., on account; J. R. Ralston took merchandise out of stock for his own use which had a cost value of $30; payment was made for advertising, $10; cash sales, $260.

Jan. 4. A. H. Campau returned goods with a cost value of $10 (selling value of $15) which he claimed were unsatisfactory; goods were sold to Harvey Wachs, $200, payment being made as follows, cash $60; H. A. Shimmy's note for $40 drawn in favor of Wachs; the balance on account; sales for cash, $250.

The inventory of merchandise at this date is $2,280; prepaid rent, $30; supplies on hand total $30. It is necessary to close the books at this time as S. E. Ralston is to be taken in as an equal partner on Jan. 5.

Post, prepare trial balance, make closing journal entries, and construct a balance sheet.

S. E. Ralston contributes cash equal to the entire net amount of J. R. Ralston's equity as it appears, after closing, Jan. 5.

Give entries showing this new investment, post, and exhibit a new balance sheet.

17.

(Form B)

From the following trial balance and supplementary data prepare expense and revenue and balance sheet statements in report form:

Trial balance of Hewett & Son as at March 31, 1919, after three months' operation:

	Dr.	Cr.
Store and Office Equipment	$ 300	
Delivery Equipment	400	
Cash	1,050	
Accounts Receivable	400	
Accounts Payable		$ 900
A. L. Hewett, Capital		2,000
Thomas Hewett, Capital		6,000
Thomas Hewett, Drawing	20	

Sales		1,600
Purchases	8,000	
Salaries	190	
Delivery Expense	110	
Rent	60	
Heat and Light	30	
Insurance	40	
Supplies	40	
General Expense	10	
Discounts on Purchases		150
	$10,650	$10,650

Additional Data:

(1) Merchandise in stock, valued at invoice cost, including freight, $6,900. (2) Present value of store and office equipment, $300; of delivery equipment, $390. (3) Estimated worthless accounts, $50. (4) Salary payable to A. L. Hewett, as manager, $95. (5) Delivery man's wages accrued, $10. (6) Rent payable, $30. (7) Fuel on hand, $10; light bill unpaid, $5. (8) Supplies on hand, $30. (9) It is estimated that 20% of delivery expense (per trial balance) is applicable to goods in stock. (10) The insurance account represents one year's insurance, paid Jan. 1, 1919.

18.

(Form C)

A, a trader, comes to Ann Arbor with $600 in cash which he deposits in a bank. He rents a store, paying a month's rent, $100, in advance. He buys goods on account from B, a local wholesaler, $2,500. He pays $300 for advertising, and at the end of the month still owes $200 on this account. He pays in cash, $50, cost of carting goods to his store. He sells for cash, $3,000, goods which cost, including the proper proportion of cartage ($25), $1,275. His delivery expenses for the month amount to $200. He hires a salesman for 10 days at $8 per day. A gives his entire time to the business and he considers his services worth $25 per

day. He pays B during the month $1,900. Light and telephone bills are paid, $15.

Set up in accounts and prepare expense and revenue statement and balance sheet in account form.

19.

(Form B)

Prepare a classified balance sheet from each of the analysis sheets you work out in Problems 22-25, 28, 29, 33, 34, and 35, following.

THE TEN-COLUMN STATEMENT

20.

(Form E)

The following is the trial balance of the Boulder Manufacturing Co., as at Dec. 31, 1917.

Plant and Equipment	$100,000	
Raw Materials (Inv. Jan. 1)	35,000	
Raw Materials Purchases	95,000	
Goods in Process (Inv. Jan. 1)	30,000	
Finished Goods (Inv. Jan. 1)	25,000	
Cash	6,000	
Accounts Receivable	125,000	
Capital Stock		$200,000
Notes Payable		25,000
Accounts Payable		64,000
Labor, Direct	210,000	
Labor, Indirect	35,000	
Manufacturing Expense	96,000	
General Expense	25,000	
Selling Expense	41,000	
Interest	1,000	
Sales		510,000
Undivided Profits		25,000
	$824,000	$824,000

Inventories, Dec. 31.

Raw materials	$42,000
Goods in process	27,000
Finished goods	28,000
Manufacturing expense accrued	450
Accrued payroll not paid ($1,200 direct and $400 indirect labor)	1,600
Interest accrued	500
Estimated income and profits taxes accrued	500.

A depreciation rate of 5% should be applied to plant and equipment.

Prepare a ten-column statement.

21.

(Form E)

Prepare a ten-column statement from the following trial balance and inventories:

	Dr.	Cr.	Inventories
Capital Stock		$100,000	
Notes Payable		50,000	
Leaseholds	$ 25,000		$ 19,500
Allow. for Depr. of Leases		5,000	
Plant and Equipment	105,000		93,000
Allow. for Depr. Pl. and Eq.		6,000	
Merchandise and Supplies	40,000		42,000
Accounts Receivable	90,000		90,000
Accounts Payable		80,000	
Sales		100,000	
Purchases	50,000		
Payroll	20,000		1,500
Expense Accounts	15,000		500
Taxes			3,000
Interest			3,000
Dividends			2,000
Undivided Profits		4,000	
	$345,000	$345,000	

22.

(Form E)

Prepare a ten-column statement from the following trial balance and inventories:

Trial Balance, December 31, 1920

	Dr.	Cr.
Land	$ 30,000	$ 5,000
Buildings and Fixtures	55,000	
Allowance for Depreciation		4,500
Inventory, Dec. 31, 1919	20,000	
Purchases	70,000	
Payroll	25,000	
Supplies	3,000	
Transportation	4,000	
Purchases Discounts		1,500
Sales	150,000	
Farmers and Mechanics Bank	21,500	
Interest and Dividends	2,000	3,000
Curtis Publishing Company		6,000
Notes Payable		30,000
S. O. Sisson, Capital		87,200
S. O. Sisson, Current	1,500	
Creditors' Ledger		35,000
Repairs	500	
Customers' Ledger	40,000	
Insurance	1,200	
Securities	30,000	
Sales Allowances	1,000	
Commissions—X	5,000	500
Miscellaneous Expense	6,500	
Advertising	6,500	
	$322,700	$322,700

Additional Data, December 31, 1920:

(1) The credit to land represents the sale of a lot which cost $4,000 (and was carried on the books at that figure.) The net present value of buildings and fixtures is estimated at $48,000. (2) Merchandise on hand, $10,000. (3) Wages payable total $1,000. (4) Supplies on hand, $500. (5) Freight bills unpaid, $600. (6) Interest accrued on notes, $500. (7) Unexpired insurance, $100. (8) Accrued taxes are estimated at $1,500. (9) On June 30, 1920, Mr. Sisson leased a part of his building to X for $1,000 per year, payable Dec. 31. X handles a considerable part of Sisson's business on a commission basis. In lieu of paying the rent due, X, on Dec. 31, 1920, gives Sisson a receipt for $500 for commissions on prospective 1921 business. (10) On March 31, 1921, Mr. Sisson will receive a check for $500 from the Western R. R. Co., covering six months' interest on some bonds which he holds. (11) Included in the securities account are bonds of the former Russian government which are now considered worthless. These bonds are on the books at $2,000.

23.

(Form E)

A & B, partners, began business Jan. 1, 1919. They have already closed their books once, Dec. 31, 1919. The following is the partnership trial balance, taken before closing, Dec. 31, 1920.

	Dr.	Cr.
Plant and Machinery	$ 50,000	
Allow. for Deprec. of P. and M.		$ 5,000
Furniture and Fixtures	7,000	
Allow. for Deprec. of F. and F.		350
Advertising	2,000	
Purchases, Materials and Supplies	200,000	
Factory Payroll	250,000	
Accounts Receivable	30,000	
Allowance for Doubtful Accounts		500

Light Heat and Power	20,000	
Cash	113,650	
Salesmen's Traveling Expense	6,000	
Accounts Payable		160,000
Insurance on Plant and Machinery	1,200	
Interest on Mortgage	1,000	
Interest, Notes Receivable		2,000
A, Capital		76,000
B, Capital		21,000
Notes Receivable	75,000	
Materials and Supplies Inventory, 1/1/'20.	15,000	
Finished Stock Inventory, 1/1/'20	20,000	
Sundry Factory Expense	7,000	
Mortgage on Plant and Machinery		20,000
Sales Allowances	1,500	
Insurance on Stock and Fixtures	1,000	
Freight—Inward	1,000	
Finished Goods Sales		550,000
Rent—Land and Office	7,500	
Office and Other Salaries	25,000	
Sundry Sales and Office Expense	1,000	
	$834,850	$834,850

Supplementary Information, Dec. 31, 1920:

(1) Depreciate plant and machinery at the rate of 10% of cost per annum, and furniture and fixtures at 5%. There have been no abandonments or additions since the business started. (2) Unpaid and unbooked advertising bills amount to $200. (3) Accrued factory payroll is $2,000. (4) Of the credit sales for the period, $300,000, it is estimated that 1% is uncollectible. (5) Fuel on hand, $500; light bill unpaid, $300. (6) Salesmen's expense vouchers received but not booked, $500. (7) Plant and equipment was insured for three years beginning Jan. 1, 1919, at a cost of $1,800. (8) The mortgage carries 5% and six

months' interest is accrued. (9) Interest accrued receivable totals $1,000; one note, amounting to $10,000, is considered worthless because of the insolvency of the maker, and is written off. (10) Materials and supplies on hand, $20,000; finished stock on hand, $25,000. (11) Unexpired insurance, stock and fixtures, amounts to $200. (12) Inward freight included in present inventories of materials and finished goods (as given under (10) above), totals $200. (13) A quarter's rent (Oct. to Dec. 1920) is payable Jan. 1, 1921.

Prepare a ten-column statement.

24.

(Form E)

The following is a trial balance of the books of Harden and Roberts for the *last quarter* of 1917. (*Assume that the books have been properly closed on the last day of the preceding quarter.*)

	Dr.	Cr.
Bank Account	$155,000	$120,000
Petty Cash	1,000	500
Customers' Accounts	140,000	90,000
Allowance, Bad Accounts	500	1,000
Merchandise Stock	5,500	
Equipment	3,500	500
Buildings	15,000	
Allowance, Depr. of Bldgs. and Equip.	500	3,000
Real Estate	85,000	
Notes Payable	5,000	35,000
Interest Payable	250	1,575
Creditors' Accounts	80,000	95,000
Purchases	95,000	
Sales		150,000
Rents	500	5,000
Advertising	2,500	
Sales Commissions	3,000	

Payroll	6,000	1,000
General Expense	10,000	500
Supplies	1,500	
Office Salaries	9,000	
Insurance	500	
Discounts and Allowances		500
Harden, Capital		50,025
Roberts, Capital		50,650
Reserve for Accrued Taxes		15,000
	$619,250	$619,250

Supplementary Data:

(1) There is a shortage in petty cash, $10. (2) It is estimated that of the credit sales for the period ($120,000) ½ of 1% is uncollectible. (3) Merchandise on hand, 12/31, $5,000. (4) Equipment and buildings are depreciable at the rates of 12% and 4%, respectively, per annum; the depreciation for this period to be computed on the basis of gross book values as of Dec. 31. (5) All of the notes payable draw interest at 6%; the charge of $5,000 represents the face of a note paid with interest Oct. 31; there have been no other adjustments of this account or interest payments since Dec. 31, 1916. (6) Advertising materials on hand, $200. (7) Wages are unpaid, $500. (8) Telephone and other current bills unpaid, $100. (9) Supplies on hand total $500. (10) On Jan. 1, 1917, the partners took out fire and other insurance policies for the year; at the beginning of the year there was no insurance outstanding; and there have been no payments for insurance since Jan. 1. (11) Property, income, and excess-profits taxes for the year have been estimated at $20,000. (12) On Dec. 31 rents on the firm's realty holdings are prepaid, $100, unpaid, $300.

Prepare a ten-column statement.

25.

(Form F)

Fill in the omitted figures in the following columns, using no data not given or implied.

	Trial Balance		Balance Sheet		Expense and Revenue	
Accounts	Dr.	Cr.	Assets	Equities	Dr.	Cr.
Cash	$ 5,500				$ 50	
Land	10,000		$10,000			
Equipment	10,000					
Allow. for Dep. of Equip.....		$ 1,200		$1,800		
Gen. Expense...	8,000					
Commissions ...		700				$ 950
Accts. Payable..		15,000				
Rent		300				100
Mdse. Inv......	4,000					
Purchases	15,000					
Sales		50,000				
Labor	12,000			500		
Accts. Rec......	40,000					
Proprietor		37,300				
Net Revenue ...						
Totals	$104,500	$104,500	$67,000			

26.

(Form E)

Prepare a ten-column statement from the following ledger account balances and inventories.

	Ledger Balances	Inventories
Factory Site	$ 80,000	$ 80,000
Buildings and Equipment	251,000	222,000
Machinery and Tools	224,000	213,000
Transportation Equipment	19,000	17,500

Capital Stock	500,000	
Accounts Receivable	51,000	48,000
Notes Payable	78,400	
Investment in Stocks	42,000	46,000
Finished Goods	66,000	65,000
Goods in Process	45,000	57,000
Materials and Supplies	57,000	29,000
Accounts Payable	59,800	
Sales	68,000	
Cash	36,400	36,200
Interest	2,700	1,100(Cr.)
Dividends Received	8,000	
Bonds	100,000	
Dividends Payable	8,000	
Undivided Profits	99,000	
Reserve for Dep. of Fixed Assets....	26,700	
Labor	27,200	800(Cr.)
General Expense	32,600	
Loss by Fire	14,000	

Comment on the accounting policies and financial success of this enterprise.

27.

(Form E)

	Dr.	Cr.	Inventory
Land	$ 40,000		$ 40,000
Buildings	75,000		
Allow. for Dep. of Blds....		$ 15,000	
Improv. on Leased Prop....	6,000		6,000
Machinery	20,000		
Allow. for Dep. of Mach...		10,000	
Tools	1,000		900
Patents	7,500		7,000
Lease	17,000		16,000
Materials:			
Inventory	55,000		58,000
Purchases	80,000		

Sales		250,000	
Cash	17,000		
Labor	25,000		2,000(Cr.)
Insurance	4,000		1,000
Commissions	5,000		
Purchase Discounts		3,000	
Sales Discounts	2,000		
Advertising	1,000		100
Freight & Cartage	500		
Power, Heat & Light	8,000		
Salaries	7,000		
Bond Interest	8,000		2,000(Cr.)
Commercial Interest	600		300
Repairs for Machinery	1,000		
Extension to Building	4,000		4,000
Expense	5,000		
Loss by Fire	500		
Taxes	900		25,000(Cr.)
Stock in X Co.	235,000		235,000
Notes Receivable	12,000		12,000
Accts. Receivable	38,000		34,000
Allow. for Bad Debts		2,000	
Rent		2,000	200
Furniture & Fixtures	5,000		4,800
Capital Stock		150,000	
Surplus		25,000	
Dividends			4,000(Cr.)
Dividends on X Co.'s Stock		16,000	
Notes Payable		20,000	
Accts. Payable		38,000	
Bonds		150,000	
	$681,000	$681,000	

From the above trial balance and inventories of the Y Co., Dec. 31, 1920, prepare a ten-column statement. Depreciate building 5% of gross valuation and machinery 10%.

28.

(Form E)

The Western Gas Engine Co.

Trial balance taken Dec. 31, 1919. (Six months period.)

Land	$ 15,000	
Factory Building	23,600	
Reserve for Depr. of Factory		$ 1,840
Warehouse	3,000	
Reserve for Depr. of Warehouse		240
Machinery & Equipment	80,000	
Reserve for Depr. of Mach. & Equip.		16,000
Small Tools	4,850	
Office Equipment	1,050	
Reserve for Depr. of Office Equip.		80
Raw Materials (Inventory July 1)	75,000	
Goods in Process (July 1, 1919)	24,500	
Cash	18,000	
Accts. Receivable	78,000	
Reserve for Bad Debts		270
Notes Receivable	7,850	
Interest on Notes Receivable		58
Purchases (Raw Materials)	280,000	
Purchase Returns		2,000
Purchase Allowances		680
Cash Discount on Purchases		3,400
Inward Freight	4,200	
Finished Goods (Inventory July 1)	17,500	
Sales		410,300
Sales Returns	7,800	
Sales Allowances	270	
Outward Freight	220	
Sales Discounts	2,400	
Accounts Payable		60,000
Mortgage Payable		40,000
Notes Payable		25,000

Interest on Notes Payable	500	
Direct Labor	40,980	
Indirect Labor	7,250	
Heat & Light	2,490	
Power	3,780	
Repairs to Machinery	2,650	
Supplies, Oil & Waste (Purchased)	814	
Insurance on Building	144	
Insurance on Machinery	390	
Insurance on Material	450	
Liability Insurance	328	
Superintendence	2,150	
Manufacturing Office Salaries	2,460	
Reserve for Taxes	240	
Truckage Expense	1,167	
Shipping Expense	780	
Sales Office Expense	1,900	
Traveling Salesmen's Salaries	20,500	
Traveling Salesmen's Expense	2,050	
Advertising	4,250	
Postage & Stationery	1,860	
General Office Salaries	3,000	
General Office Expense	800	
Capital Stock		150,000
Surplus		34,105
Dividends Unclaimed		200
	$744,173	$744 173

Inventories and Adjustments, Dec. 31, are as follows:

Goods in process	$27,720
Raw materials	70,000
Supplies, oil and waste	132
Finished goods	19,900
Small tools	2,530
Interest accrued on mortgage payable	1,200

Payroll accrued—direct labor	1,650
Payroll accrued—indirect labor	230
Reserve for estimated loss on bad debts	2,011
Interest accrued on notes payable	244
Accrued interest on notes receivable	25
Unexpired insurance:	
on building	12
original cost on machinery	195
on materials	225
liability insurance	164
Estimated federal taxes	1,000

Depreciation of factory building, warehouses and office equipment is estimated at the rate of 4% per annum; machinery is depreciated at a 10% rate.

A semiannual dividend of 4% is declared on capital stock.

Prepare a ten-column statement.

29.

(Form E)

Prepare a ten-column statement from the following trial balance and inventories.

	Trial Balance		Inventory
Land Property	$ 17,000		$ 18,000
Warehouse	10,100		9,800
Store Building	22,700		21,900
Notes Receivable	8,400	$ 5,800	2,600
Warehouse Equipment	700		650
Store and Office Fixtures	3,600	400	3,100
Notes Payable	5,000	25,000	
Accounts Payable	11,900	22,600	
Cash	18,200	13,900	4,300
Delivery Equipment	2,400		2,200
Wages and Salaries	8,900		Cr. 200
Fuel	800		200
Rebates and Allowances		1,200	

Sales Discounts	1,600		
Western Supply Co.	1,300	14,200	
The Buckley Co.	2,200	38,500	
Roggers and Wilson	2,200	40,600	
Purchase Discounts		900	
Purchases	61,000		
Merchandise Inventory	18,300		38,500
Delivery Supplies	400		100
Advertising	250		
Miscellaneous Expense	3,900		
Office Supplies	650		350
Gross Sales		82,400	
Freight and Express	950		
Accounts Receivable	48,600	32,500	14,400
Interest Paid	1,100		700
Interest Received		240	40
Insurance	2,400		1,700
Rent		1,050	500
Tax Reserve		200	2,300
Damage Claims	3,300		
Agency Contracts	21,640		21,640
	$279,490	$279,490	

What is the peculiarity of ownership in this case? Comment on any other special features which you observe in this problem.

The Working Sheet

30.

(Form E)

Trial Balance of S. Y. Merkle, Dec. 31, 1915.

Cash	$ 12,250
Notes Receivable	32,700

Accounts Receivable	47,000	
Furniture & Fixtures	3,000	
Building	13,000	
Real Estate	50,000	
Notes Payable		$ 30,000
Accounts Payable		13,210
Advertising	2,600	
Commissions	3,050	
Expense	12,900	
Salaries and Wages	9,300	
Insurance	625	
Postage	1,315	
Cash Discount on Purchases		550
Exchange	25	
Interest	175	
Cash Discount on Sales	375	
S. Y. Merkle, Personal	4,215	
S. Y. Merkle, Proprietor		84,420
Purchases	120,600	
Merchandise Inv.	11,500	
Sales		196,450
	$324,630	$324,630

Inventories:

Furniture and Fixtures	$ 2,750
Buildings	12,400
Real Estate	48,000
Advertising	400
Insurance	125
Postage	350
Interest (Dr.)	15
Merchandise	5,816
Salaries and Wages (Cr.)	315

Prepare a working sheet.

31.

(Form E)

From the following trial balance and inventories prepare a working sheet.

Trial Balance Dec. 31.

Proprietor		$ 45,000
Office Equipment	$ 3,930	
Delivery Equipment	2,750	
Land	3,650	
Machinery	25,750	
Buildings	18,650	
Notes Payable		32,350
Notes Receivable	4,757	
Accounts Payable		4,736
Accounts Receivable	32,450	
Cash	3,433	
Advertising	2,570	
Payroll	8,750	
Commission	3,650	
Expense	5,740	
Insurance	3,400	
Postage	865	
Interest	375	
Discounts and Allowances		450
Merchandise (Jan. 1)	5,650	
Merchandise Purchases	37,650	
Merchandise Sales		81,484
	$164,020	$164,020

Inventory:

Office Equipment	$ 3,600
Delivery Equipment	2,500
Land	3,400
Machinery	22,500
Buildings	18,150

Advertising	400
Insurance	515
Postage	125
Merchandise	7,550

32.

(Form E)

Prepare a working sheet from the trial balance which you prepared for Exercise 3 in Chapter VIII, using the following inventories:

Merchandise	$ 8,210
Advertising prepaid	50
Insurance: (The student can determine this inventory. See transaction Feb. 8).	
Buildings (not including garage) ..	$19,900
Furniture and Fixtures..........	3,000
Fuel	75
Delivery Supplies	20
Delivery Equipment	750

33.

(Form E)

Watson & Son, Trial Balance, April 30, 1921.

Store and Office Equipment ....$	340.85	
Delivery Equipment	550.00	
Cash	4,303.56	
Accounts Receivable	921.15	
Notes Receivable	622.00	
Merchandise Inventory	6,650.00	
Unexpired Insurance	36.67	
Notes Payable		$ 6,000.00
Accounts Payable		839.00
John Watson, Capital		5,046.55

John Watson, Personal		64.00
Sales		3,438.40
Sales, Returns and Allowances	3.25	
Out-Freight	2.50	
Merchandise Purchases	1,520.00	
Purchase Returns and Allowances		120.00
In-Freight	15.70	
Salaries	228.00	
Advertising	22.05	
Delivery Expense	67.50	
Rent	60.00	
Heat and Light	32.00	
Office and Store Supplies	78.50	
General Expense	37.65	
Interest on Notes Payable	43.17	
Cash Discount on Purchases		26.60
	$15,534.55	$15,534.55

Inventories: merchandise, $5,468.45; coal, $2.50; feed, $1.20; postage and stationery, $9.00; advertising circulars, $6.00; store and office supplies, $43.50; light expense accrued, $8.40; salaries accrued, $26.67; delivery expense, $8.00; advertising expense accrued, $3.20; insurance expired during month, $3.34; interest receivable, $10.25; and interest payable $11.64.

Compute depreciation on equipment for one month only at 10% per annum.

Prepare a working sheet.

34.

(Form E)

Smith and Wesson, Trial Balance, May 31, 1921.

Smith's Capital		$ 42,500
Wesson's Capital		36,300
Plant and Machinery	$ 37,500	
Allow., Depr. of Pl. and Mach.		1,800
Stock on Hand (May 31, 1920)	20,525	

Sales		131,405
Purchases—Materials and Supplies	51,200	
Warehouse Labor	7,000	
Truck Drivers and Garage Labor	9,000	
Wages, Engineers and Firemen	3,000	
Salaries of Salesmen	11,500	
Office Salaries	8,000	
Traveling Expenses, Salesmen	2,400	
Interest on Notes Payable	600	
Stationery and Printing	175	
Freight In	2,500	
Freight Out	2,250	
Commissions	6,375	
Advertising	500	
Notes Receivable	6,115	
Interest on Notes Receivable		1,100
Rent	4,000	
Taxes	200	
Sales Discounts and Allowances	2,250	
Purchases Discounts and Allowances		3,100
Fuel	4,600	
Insurance	175	
Accounts Receivable	36,115	
Accounts Payable		6,150
Miscellaneous	6,375	
	$222,355	$222,355

Write off depreciation on plant and machinery at the rate of 5% per annum. ~~Merchandise has become shopworn and depreciated to the estimated amount of $300~~. Accounts receivable to the amount of $325 are considered to be uncollectible. Salaries and wages have accrued as follows: warehouse labor, $75; wages of drivers, $100; engineers and firemen, $65; salesmen, $65; office salaries, $57. Interest is accrued as follows: on notes receivable, $205; on accounts payable, $22. Other inventories are as follows:

Stock on hand May 31, 1916 (at cost)	$19,605
Unexpired insurance	75
Advertising prepaid	125

Prepare a working sheet.

Has the firm recently reduced its liabilities?

35.

(Form E)

Trial Balance of Whaley & Parsons, Dec. 31, 1920.

Land	$ 3,000	
Store Building & Warehouse	12,000	
Reserve for Depreciation		$ 3,000
Garage	2,000	
Store Equipment	1,200	
Delivery Equipment	2,500	
Office Equipment	400	
Cash	560	
Notes Receivable	1,300	
Accounts Receivable	8,070	
Merchandise Inventory	12,000	
Mortgages Payable		6,500
Notes Payable		5,500
Accounts Payable		7,500
R. S. Whaley, Capital		8,860
P. D. Parsons, Capital		5,100
Gross Sales		110,000
Returns and Allowances	650	
Merchandise Purchases	89,000	
Freight, Exp. & Cartage	860	
Cash Disc. on Purchases		950
Salaries of Buying Force	525	
Other Buying Expenses	23	
Salaries of Sales Force	6,540	
Advertising	110	
Misc. Selling Expense	415	

Wages of Delivery Force	1,530	
Other Delivery Exp.	1,495	
Management & Office Salaries	1,610	
Office Supplies & Expense	122	
Heat, Light & Power	220	
Insurance	95	
Taxes	80	
Repairs & Renewals	105	
Telephone Expense	180	
Ice & Cold Storage Expense	115	
Other Misc. Expense	75	
Reserve for Uncollected Accts.		90
Revenue Stamps	550	
Interest Paid	170	
	$147,500	$147,500

Supplementary data:

Merchandise inventory, including freight and revenue stamps applicable thereto, $13,800.

Compute depreciation for one year on store building & warehouse at 3%, garage at 4%, store and office equipment at 10%, and delivery equipment at 20%, per annum.

Interest accrued on notes receivable, $8.50.

Interest accrued on notes payable, $21.50.

Interest accrued on mortgages payable, 6% for 4 months.

Expense accrued as follows:

Salaries of sales force	$37.00
Salary of garage man	18.00
Advertising unpaid	15.50
Miscellaneous expense	4.00

Heat, light and power, debit inventory	$25.00
Unexpired insurance	35.00.
Revenue stamps	25.00

An examination of the customers' ledger shows that the accounts with seven customers, a total of $545, are uncollectible.

Prepare a working sheet.

Miscellaneous

36.

(Form B)

On Jan. 1, 1920, the balance sheet of the Swift Trading Co., a partnership, stood as follows:

Assets:

Store and Office Equipment—Cost	$ 5,500	
Less Allowance for Depreciation	800	
		$ 4,700
Merchandise Inventory		52,000
Customer's Ledger		45,000
Cash		12,000
Supplies		500
Insurance Prepaid		500
Securities		2,000
		$116,700

Equities:

A. B. Swift, Capital		$ 40,000
A. B. Swift, Current		1,500
C. D. Swift, Capital	$40,000	
C. D. Swift, Current	2,000	
		$ 38,000
Notes Payable		5,000
Creditors' Ledger		31,300
Wages Payable		400
Interest Payable		500
		$116,700

A summary of the business for 1920 is as follows: Merchandise purchased, $500,000; wages paid, $30,000; sales, $625,000; insurance premiums paid, $1,000; miscellaneous supplies pur-

chased, $2,000; payments for advertising, $1,000; collections from customers, $620,000; customers' accounts written off as worthless, $1,500; cash drawings by A. B. Swift, $8,000; drawing by C. D. Swift: cash, $7,000, merchandise (at cost), $500; dividends and interest received, $150; interest paid, $600; notes paid, $3,000; new equipment purchased, $500; second-hand equipment which cost $300 was sold for $50; miscellaneous expenses paid, $1,200; payments to creditors, $490,000.

(a) Assuming that all purchases of merchandise and supplies were on account, that there were no cash sales, and that proper allowance had been made for the depreciation of the amount of equipment sold, present the trial balance of the firm as it would stand at the close of business, Dec. 31, 1920.

(b) Making use of the following supplementary data present an income statement covering the year's business and a new balance sheet:

(1) Depreciation rate is 10% of cost per year. The unit sold was disposed of on June 30 and the new unit was acquired the same date. (2) Merchandise on hand, Dec. 31, 1920, $40,000; supplies on hand, $700; insurance unexpired, $400. (3) On Jan. 1, 1921, the firm will receive a half-year's interest on a bond which it holds amounting to $30. (4) Interest accrued amounts to $100; wages unpaid, $200; liability for accrued miscellaneous expenses, $50.

37.

(Form F)

	Dr.	Cr.	Assets	Equities	Exp.	Rev.
Real Estate	$20,000					
Buildings	18,000				$ 500	
Equipment			$9,000		1,000	
Supplies			100		1,200	
Gen. Items					400	
Accts. Rec.	6,000					
Res., Bad Accts..				$ 300	200	

Accts. Pay.				20,000		
Rent			200			$ 50
Wages	6,000				6,500	
Purch. Disc.		$ 200				
Merchandise		12,000				19,000
Proprietor						

Fill out the above incomplete statement, using no figures not given or *implied*. Prove your work by striking balances.

X

THE DETERMINATION OF NET REVENUE

The Significance of Net Revenue

1.

"*Operating net revenue* is the accountant's most important figure. All of his analyses and judgments come to focus in the statement of net revenue. The periodic expression of net revenue is also the thing above all in which manager, investor, current creditor, employee, the state, and all other interests involved, are vitally concerned."

Explain and discuss.

2.

"The three fundamental tests which may be applied to any accounting principle or procedure, stated in the order of their importance, are as follows:

(1) Does the procedure disturb the integrity of periodic net revenue?

(2) Does it disturb the integrity of the balance sheet, the statement of assets and equities?

(3) Does it disturb the integrity of an interior classification such as expense or revenue?

While these tests are more or less interdependent, cases can be given to which each, alone, applies."

Discuss, and demonstrate, with concrete illustrations, the validity of the last sentence.

3.

Show that the integrity of the net revenue balance is a matter of especial moment in cases where there are several proprietors or several classes of investors.

4.

State the essential steps in the accounting process which give rise to the net revenue figure. Define net revenue precisely in terms of the equities. In terms of the assets.

5.

Explain the distinction between the economist's "cost of production" and "expense" as this term is used in accounting.

6.

Show that the concept of net revenue in its economic significance varies widely with different types of organization and with the special circumstances surrounding individual enterprises.

7.

H. A. Jones owns and operates a small store. He hires practically no help except a delivery boy. His Expense and Revenue account for the year 1915 shows a credit balance of $2,500. Interest charges and other deductions amount to $150. During 1916 Jones is forced to absent himself from the business entirely because of illness. He hires a man to run the store, paying him a salary of $1,200. The balance of the Expense and Revenue account at the close of the year is $1,600. Interest charges and other deductions amount to $125.

Was the business less profitable in 1916 than in the preceding year? Explain fully.

8.

H. P. Hough conducts a retail store business. He owns his own site, store, and fixtures. He requires the services of but one regular clerk, and an occasional helper. He keeps the books himself, does all the buying, and handles a large part of the sales. At the end of 1920 his income statement shows net earnings of $4,500.

Assuming that he has approximately $15,000 invested in the business, make what seems to you to be a reasonable division of this net income into its fundamental economic elements.

Suppose Mr. Hough regularly draws $200 a month from the business, how should this be recorded? Explain fully.

Suppose Mr. Hough draws irregularly but wishes to charge his salary account with $200 each month, how should the situation be recorded if the accounts are to give the utmost information to the proprietor? Show fully, with skeleton accounts and entries.

9.

An accountant tells Mr. Hough (continuing Problem 8) that he should charge revenue each year with a reasonable allowance for his own services, the use of his land and building, and the use of his capital. He insists that accounts should be opened and that journal entries should be made at the end of the period, or in a regular sequence during the year, to record these "costs." For the following year, assuming capital conditions to remain the same and that Mr. Hough will require $200 per month for living costs, he suggests that the following entries be made once each month:

(1) Proprietor's Salary Expense........	$250	
Cash		200
Profit and Loss		50
(To charge revenue with a reasonable allowance for proprietor's services)		
(2) Interest on Capital Owned	75	
Profit and Loss		75
(To charge revenue with 6% of $15,000 for one month)		
(3) Rent of Site and Building Owned...	150	
Profit and Loss		150
(To charge revenue with a fair allowance for rent of properties owned)		

Criticize this suggestion fully. Show that entries (2) and

(3) involve a sheer duplication, and that *certain* actual expenses arising under other heads largely take the place of the hypothetical charge under (3). Show further that the net balance of the Profit and Loss account is not affected by this procedure.

10.

There are various questions to which the proprietor wants an answer:

(1) How much have I actually made during the past period?

(2) How much might I have made had I embarked upon some alternative course?

(3) How much more or less, as the case may be, have I made than I would have made had I embarked on the alternative course?

Which of these questions are the accounts designed to answer? Show that any attempt to answer the others by formal accounting entries is utterly futile.

11.

A crop of wheat, nearly ready to harvest, was destroyed by a hail storm. The farmer deducted the estimated value of the crop as a loss in his income tax return. The auditor for the Internal Revenue Bureau threw out this deduction.

Show that the auditor's procedure conformed to sound accounting principles. To what deductions was the farmer entitled on account of this crop? Draw a general conclusion with respect to the meaning of the term "loss" for the accountant.

12.

A retail fuel dealer, in determining his year's costs for the Fuel Administration, included an item entitled "flood loss, $600." Inquiry disclosed the fact that this was the dealer's estimate of the value of supplies destroyed, the additional repairs made necessary,

the increase in payroll due to floods, the amount of merchandise damage, and the estimated value of the extra time he was obliged to devote to the business on this account.

Discuss fully, showing what accounting methods the dealer must follow to avoid duplication and padding of expense by the inclusion of this special item.

The Cash Statement

13.

In the early days of a certain railway company, it is said, the president of the road simply inquired as to the status of the bank balance in deciding whether or not to pay a dividend.

Discuss the propriety of such a procedure. Show specifically that cash might be increased in a particular case even though the business were being operated at a loss. Show that the converse might also be true. State definitely the several conditions which must be present before it is feasible to draw cash from the business as profits.

14.

The year's expense and revenue statement for a corporation shows a net revenue of $75,000. This compares favorably with the showing of previous years. Interest requirements total $25,000. The capital stock amounts to $500,000; and a 7% dividend has been customary. Owing to unusually heavy outlays for supplies and to late collections the cash balance is very low, amounting to only $20,000.

How is the company to meet its interest charges? Should the dividend be foregone until a more favorable showing of cash is attained? Answer the last question assuming: (a) that the stock of the corporation is closely held by a few wealthy men; and (b) that the stock is largely held in small lots, the owners of which depend in many cases upon the usual dividend to meet current obligations.

15.

The balance sheet of Moore and Van Fleet on Dec. 31, 1920, stood as follows:

Assets:		Equities:	
Store Fixtures	$ 2,000	A. D. Moore, Capital	$15,000
Office Equipment	1,000	S. Van Fleet, Capital	15,000
Merchandise	25,000	S. Van Fleet, Drawing	800
Accounts Receivable	15,000	Notes Payable	5,000
Accrued Items	200	Accounts Payable	10,700
Cash	4,800	Accrued Items	1,500
	$48,000		$48,000

On Dec. 31, 1921, the balance sheet is as follows:

Assets:		Equities:	
Store Fixtures	$ 1,800	A. D. Moore, Capital	$15,500
Office Equipment	1,200	A. D. Moore, Drawing	1,250
Merchandise	26,000	S. Van Fleet, Capital	15,500
Accounts Receivable	19,000	Notes Payable	5,650
Accrued Items	500	Accounts Payable	12,600
Cash	2,500	Accrued Items	500
	$51,000		$51,000

(a) Assuming that the partners have withdrawn no funds and made no new investments during the year, what was the net revenue of the business for the year 1921? Assuming that Van Fleet drew $1,500 and Moore $250 during the year what was the net revenue?

(b) Assuming all conditions to be unchanged except that in the second balance sheet Accounts Receivable stands at but $17,000 and Notes Payable is correspondingly reduced, answer the same question.

(c) Assuming all conditions to be unchanged except that the Cash item in the second balance sheet stands at $2,000 and Ac-

counts Receivable is correspondingly increased, give the net revenue figure.

(d) Assuming conditions unchanged except for a reduction of $500 cash in Cash and A. D. Moore, Drawing, answer the question.

(e) Draw a general conclusion.

16.

State three main kinds of transactions affecting the credit side of the cash account which have no direct effect upon expense. State four types of transactions affecting the debit side of the cash account but having no immediate effect upon the revenue account. Similarly give two kinds of transactions which affect revenue but do not directly disturb cash and three kinds of transactions which affect expense but do not immediately affect the cash account.

17.

(Form B)

The treasurer of an electric light and power company presents the following statement of receipts and disbursements:

Receipts

Cash on hand Jan. 1, 1915...		$11,600
Residence Lighting	$24,500	
Street Lighting	13,200	
New Mortgage	30,000	
Notes Payable	15,000	
Shop Lighting	8,700	
Power Sales	39,200	
Water Rights Rentals	2,100	
Miscellaneous	1,500	
Total Receipts for the Year		$134,200
		$145,800

Disbursements

Materials and Supplies	$ 7,200
Line Extensions	12,600
New Dynamos and Equipment	18,200
Wages and Salaries	20,500
Interest on Mortgages and Notes	5,700
Notes Payable	5,000
Dividends	18,000
Repairs and Maintenance...	12,500
Taxes	1,500
Improvements to Power Station	16,700
Office and General Expense..	12,300
Miscellaneous Expense	1,600

Total Disbursements for the Year $131,800

Cash on hand Dec. 31, 1915......... $ 14,000

Prepare statements of expense and revenue and net revenue from the above report. In just what respects do the statements you have prepared fail to represent the actual situation?

Deferred Charges and Credits

18.

At the end of the fiscal period, what general considerations should determine whether an outlay should be carried to the balance sheet or to the expense and revenue statement?

19.

A certain corporation has uninsured property destroyed by fire amounting to $15,000. There are at least three possible ways of treating this item in the accounts and statements, each of which

can be defended under certain circumstances. State the three alternatives and explain the circumstances which would justify each procedure.

If the above loss occurred during the construction period a fourth procedure might conceivably be allowed. Explain.

20.

A corporation has loaned $50,000 to one of the directors who is also treasurer of the company. Upon the death of this officer it is discovered that his estate is bankrupt, and that there are shortages in certain sinking funds amounting to $25,000. Assuming that the treasurer's estate amounts to but 10% of all claims, state how you would recommend that this matter be dealt with on the books of the corporation. (Give journal entries).

21.

"It is unjust to the stockholders to burden the revenue of succeeding years with charges covering outlays the benefit from which is entirely exhausted in the current or preceding accounting periods." Discuss.

22.

"The cost of stripping overburden in the case of mining properties requires unusually heavy expenditures for one or two years and hence should not be entirely charged to expense in the periods in which the outlay actually occurs but should be distributed evenly over several succeeding periods; similarly unusual losses caused by technical improvements, accidents, etc., should be distributed over several expense and revenue statements."

Why should expenditures for stripping, insurance premiums, long-term leases, etc., be distributed over the statements of several fiscal periods? Is there any relation between such expenditures and losses caused by accidents and invention?

23.

Can losses occur even if no revenue whatever is being produced? Illustrate. Why should a loss *not* be treated as a deferred charge to operation? Can you see any reason for the rule of the Interstate Commerce Commission which permits a road, under certain conditions, to carry the undepreciated cost of abandoned property in the balance sheet as a deferred charge, a charge which is subsequently written into operating expense?

24.

A partially completed factory building is destroyed by a cyclone. There is no insurance. How should this case be dealt with in accounts?

25.

"While a large proportion of American business is done on a credit basis, *i. e.,* where services are sold and delivered significantly in advance of payment, there are numerous important cases where just the reverse is the customary procedure, *i.e.,* where payment is made in advance of delivery. Transportation companies, amusement houses, insurance companies, milk retailers, and others commonly receive payment from customers before furnishing the commodity or service involved. This kind of situation gives rise—on the books of the vendor—to a special type of liability, a liability which is liquidated with goods or services rather than cash, and the amount of which is later transferred to revenue. On the books of the vendee, a special type of account receivable is created, a receivable which is later exchanged for appropriate goods or services and the amount of which ultimately constitutes cost."

Discuss, giving concrete illustrations and journal entries covering your cases on the books of both vendor and vendee.

26.

A newly organized fire insurance company inaugurates a big selling campaign and writes insurance during the first year of

business which yields premiums amounting to $800,000. At the end of the year it is found that of this amount $450,000 represents premiums applicable to unexpired insurance.

Give entries covering this situation on the books of the company and explain carefully the nature of the various accounts involved.

27.

(a) During the month of May an amusement company sells season tickets amounting to $4,500. In the same month these tickets are cancelled to the amount of but $1,500. In preparing an expense and revenue statement for May, how should this situation be handled?

(b) Suppose that the expenses of the above company are nearly constant month by month, while revenue is large in the summer months and dwindles decidedly in the winter season. In this case is the month a significant accounting period?

Wasting Assets

28.

What are the pecularities of natural resources such as mines, gas and oil wells, timber tracts, etc., which justify the application thereto of the special designation, "wasting assets"? Are orange groves, rubber plantations, apple orchards, and the like, also in this group?

29.

A mining company acquires a mineral tract at a cost of $100,000. Equipment is purchased at a cost—including installation—of $50,000. During the first year of operation sales total $120,000; labor costs amount to $60,000; supplies and other current costs applicable to the year's business total $30,000; depreciation of equipment is estimated at $5,000.

(a) What other fact must the accountant know before he can determine the company's net revenue for the year?

(b) Assuming that it has been ascertained by exploration that the ore body will last just 10 years at the current rate of exhaustion, compute the company's net revenue for the year.

(c) The company declares and pays a cash dividend of $20,000 to its stockholders. Give appropriate journal entries and explain.

(d) A is the holder of 10% (1000 shares) of the company's stock. He bought his stock at an average price of $10 per share, expecting it to yield, net, about 15% per annum. Give the appropriate journal entries on his books covering the receipt of his dividend check, and explain.

Maintenance and Improvement

30.

The management of a railroad company decides to eliminate a double curve from its line, in order to better train time, reduce fuel and other expenses and insure the safety of passengers. It is necessary to cut a roadbed through high ground and lay two miles of new track. The total cost of the new line is $195,000. The book value of the old right-of-way and track is $75,000. This figure represents cost; the amount credited to depreciation reserves applicable to this part of the property is $15,000. The company realizes $1,500 through the sale of the right-of-way of the abandoned line, and recovers rails, ties and other property with an estimated value of $12,500.

The corporation bookkeeper makes entries which, in essence, amount to the following:

New Property	$195,000	
Cash (and equivalents)		$195,000,

and,

Cash	$ 1,500	
Salvage	12,500	
Old Property		$ 14,000.

Discuss the propriety of this accounting procedure.

31.

A railroad company replaces a wooden bridge which cost $15,000 (and is carried in the accounts at that figure) with a concrete structure involving an expenditure of $12,500. The new bridge is much more substantial than the old, being capable of carrying a 25% greater load; and it is also more durable. Give entries showing how this situation should be handled in the accounts.

Suppose the new bridge cost $17,500 and had exactly the same physical efficiency as the old, what entries should be made? Assuming the new bridge is less substantial and durable than the old and costs $20,000, what are the entries?

Draw a general conclusion.

32.

The following represents, in summary form, a corporation's balance sheet:

Plant and Equipment	$175,000	Capital Stock	$200,000
Current Assets	115,000	Income Bonds, 6%	50,000
Profit and Loss	15,000	Other Liabilities	35,000
		Valuation Reserves	20,000
	$305,000		$305,000

What is the amount of the stockholders' equity as shown by this statement?

The management, acting in the interest of the common stockholders, has adopted an ultra-conservative policy in accounting. In the four years the company has been operating a deficit of $15,000 has been accumulated, and no dividends have been paid to the stockholders nor interest to the bondholders. During this period patents originally carried at $25,000 have been charged to expense. Gross revenues are increasing and a reasonable estimate as to the present value of the patent rights is $15,000. The original book value should have been $20,000. Machinery which cost $12,000 has been replaced with new machinery requiring

(b) Assuming that it has been ascertained by exploration that the ore body will last just 10 years at the current rate of exhaustion, compute the company's net revenue for the year.

(c) The company declares and pays a cash dividend of $20,000 to its stockholders. Give appropriate journal entries and explain.

(d) A is the holder of 10% (1000 shares) of the company's stock. He bought his stock at an average price of $10 per share, expecting it to yield, net, about 15% per annum. Give the appropriate journal entries on his books covering the receipt of his dividend check, and explain.

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Draw a general conclusion.

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	\$305,000		\$305,000

What is the amount of the stockholders' equity as shown by this statement?

The management, acting in the interest of the common stockholders, has adopted an ultra-conservative policy in accounting. In the four years the company has been operating a deficit of \$15,000 has been accumulated, and no dividends have been paid to the stockholders nor interest to the bondholders. During this period patents originally carried at \$25,000 have been charged to expense. Gross revenues are increasing and a reasonable estimate as to the present value of the patent rights is \$15,000. The original book value should have been \$20,000. Machinery which cost \$12,000 has been replaced with new machinery requiring

an outlay of $18,000. No allowance was made on the books for this improvement. Depreciation charges on equipment have been excessive by $8,000. Reserve for Bad Debts stands at $5,000. This is $2,000 in excess of a liberal estimate of the worthless accounts. Depreciation of buildings has been overstated, $2,500.

If the accounting procedure had been strictly accurate how would the above balance sheet be modified and what would be the amount of proprietorship to-date (assuming four years of operation)? Discuss fully.

33.

While repairing the snow fences along an electric railway the repair gangs, in addition to replacing any worn parts, drive extra nails and use new lumber for strengthening particularly troublesome stretches, which cost $175. Should this amount be considered an improvement and consequently be charged to capital?

34.

Explain what is meant by a "secret reserve". List five common practices which lead to such reserves. Are any of these practices justifiable? Show that the interests of certain classes of security holders may be jeopardized by such practices.

35.

A self-starter is attached to the firm's delivery car at a cost of $85. How should this item be treated in the accounts?

The car is damaged in an accident. The cost of repairing the damage is $50. To what class of accounts should this outlay be charged?

36.

A company owns a timber tract which it will take about 10 years to cut. To facilitate logging operations a road is built across the property at a cost of $15,000. How should this outlay be dealt with by the acountant?

37.

A. B. Snow is sued by the X Co. for patent infringement, and his legal expenses total $2,500. How should this outlay be treated on Snow's books.

Suppose that Mr. Snow lost the suit, and in addition to his own legal expenses had to pay costs of $3,000 and damages of $5,000. How would you answer the above question?

38.

Jabez Homer leases his empty store building for 5 years to a moving picture company. As a necessary condition of the lease Homer is obliged to do some remodeling which costs $500. What is the accounting significance of this outlay?

At its expiration the lease is not renewed and again Homer finds himself with a vacant property on his hands. After vainly trying for some time to negotiate another lease with moving picture operators, and failing to sell, he decides to reconvert the structure into a store building and to go into the grocery business himself. The cost of remodeling front and installing display cases and other necessary fixtures is $1,500. State the proper accounting treatment for this cost.

39.

In 1917 a certain manufacturer converted a tenement house which he owned into a factory for manufacturing gas shells on U. S. Government account. He moved his tenants to new quarters at considerable expense, and spent several thousand dollars in remodeling. In 1918, after the armistice, he used the building principally for storage purposes. In 1919 he spent about $3,000 restoring the building to its original use.

Discuss the treatment of these outlays in the accounts.

Appreciation and Depreciation

40.

The expense and revenue statement for a certain firm shows a credit balance of $113,700. An appraisal shows that real estate has appreciated $25,000 above book value. Give entries recording this item of appreciation, assuming: (a) that the increase in value has occurred during the current year; (b) that the appreciation has occurred during five years. What it total net revenue for the year, assuming the increase in real estate values is a current change? Could a cash dividend or interest appropriation be made covering this entire amount?

41.

Distinguish between *total* net revenue, and net revenue from *operation*. Show by illustration that it may be a difficult matter to determine the exact amount of net revenue which is the significant figure for comparative purposes.

42.

During the year 1914, A is general manager for the B corporation. The slow business of that year makes the operating sheet an unsatisfactory one although A has directed the affairs of the corporation very efficiently. A foresees an improved business situation in 1915 and has taken advantage of the prevailing low prices to stock up on raw materials and supplies in the fall of 1914. Total net revenue for the year amounts to $1,475,000. In 1915, B succeeds A as general manager. Business booms, prices advance rapidly, and net revenue for the year totals $2,700,000. If, however, all raw materials had been purchased at prevailing 1915 prices, net revenue would have amounted to but $2,200,000.

What may we term this additional half-million of profit? Can the net revenues of the two years be used for comparative purposes as a test for efficiency?

Miscellaneous

43.

A fruit vendor begins business. During the first day he buys merchandise at a cost of $100; he pays a license fee of $5; he buys supplies with a cost of $2. All labor and other services he furnishes himself. He sells goods for cash, $90.

What other facts must you have in order to determine his profit for the day?

44.

X and Y, realty brokers, donate $500 from their business funds for famine relief. Is this a loss? Explain.

45.

A piano dealer buys goods amounting to $5,000. He sells these goods on a 5-year monthly installment plan, the gross price being $10,000. What procedure would you suggest that he follow in determining net income the first year, assuming collections during the period total $2,000?

46.

A contractor is building a paved road, 30 miles in length, for the State of Michigan. He starts work in 1918 and finishes the job in 1921. He is paid nothing until completion. Assuming this was his only job during the period did he make any profit prior to 1921? Explain fully.

47.

A realty speculator buys a tract of 5 acres of urban land in 1921 at a cost of $25,000. Costs of subdividing and improving total $10,000. The land is divided into 25 parcels, each of approximately the same grade and price. He sells four lots in 1921 @ $2,000. Ignoring selling costs what is his profit?

(b) Jackson withdraws $100 for personal use.

(c) The net revenue for a month, $200, is transferred to Jackson's account.

(d) The net revenue above mentioned is withdrawn by the proprietor.

(e) Jackson decides to enlarge the business and reinvests the above withdrawals ((b) and (d)) and $500 additional capital.

(f) A fire in the freight depot destroys merchandise consigned to Jackson valued at $1,200. Jackson has already acknowledged receipt of these goods. He sues the railroad company and finally is awarded $1,000 in damages; his expenses during the suit are $300.

4.

A, the proprietor of a small business, allows himself a salary of $150 per month. How is this fact to be recognized in the accounts (a) assuming A actually withdraws in cash the amount of his salary, and (b) that no withdrawals are made? Explain carefully the significance of such proprietary transactions.

5.

J. L. Crandall is the proprietor of a shoe store. You are thinking of buying the enterprise. The following statement is handed you, June 31:

Inventory

Stock	$32,000
Furniture and Fixtures	4,500
Notes and Accounts Receivable	6,000
Miscellaneous Assets	2,200
Notes and Accounts Payable	6,700
Other Liabilities	300

Supposing this statement to represent the condition of affairs to-date (and assuming the enterprise to be a going concern), how much are you willing to pay Crandell for his business? What is the amount of proprietorship?

6.

What are the advantages of keeping proprietorship accounts and subsidiary accounts with expense and revenue items even in the case of a small single-proprietor enterprise? If specific proprietorship accounts are not kept in such a case how is the amount of proprietorship to be ascertained?

7.

The balance sheet of a certain business on Jan. 1, 1917, appears as follows:

Assets		Liabilities	
Bldg. and Equipment..	$11,400	Proprietor, Capital ...	$20,000
Merchandise	17,800	Proprietor, Personal ..	220
Notes and Accts. Rec..	1,400	Notes and Accts. Pay..	13,300
Supplies	400		
Insurance	180		
Cash	2,340		
	$33,520		$33,520

On July 1, the balance sheet of the same firm appears as follows:

Assets		Liabilities	
Bldg. and Equipment..	$12,000	Proprietor, Capital....	$20,000
Merchandise	21,500	Proprietor, Personal...	540
Notes and Accts. Rec..	900	Notes and Accts. Pay..	16,430
Supplies	300		
Insurance	120		
Cash	2,150		
	$36,970		$36,970

Assuming that there has been no new proprietary investment during the six months and no withdrawals, what is the proprietary income for the period? Is all the information given in this problem necessary to the solution? Explain.

Copartnership Proprietary Accounts

8.

(a) State the essential characteristics of a partnership.

(b) Show why proprietorship accounts are of greater importance where several partners are involved than in the sole-proprietor enterprise.

9.

(Forms B and C)

A and B decide to begin business as equal partners. Each invests $5,000. During the first year A withdraws $1,750 from the enterprise. B withdraws $500. Net proprietary income for the year amounts to $2,100. This income is divided equally between the partners. During the second year A withdraws $1,400; B makes no withdrawals. Net income for the year amounts to $1,950. This income is divided in proportion to the partners' investments as they appear just before the division.

Journalize all these transactions in so far as they affect the partners' accounts, and prepare an exhibit of these accounts as they would appear at the beginning of the third year's business.

10.

(Forms B and C)

C and D form a partnership. It is agreed that C is to have active control of the operation of the enterprise. He furnishes a nominal amount of capital, $500, and agrees to devote his entire time and energy to the business. D invests $9,500. According to the agreement D is to receive 10% on his investment annually (provided this amount is earned) and C is entitled to all residual income. The balance of the Expense and Revenue account at the close of the year is $3,050. Interest charges and other deductions amount to $850. This leaves a proprietary income of 22%. D withdraws during the year just the amount of his income. C withdraws $1,400.

Give journal entries covering these transactions, and show the partners' drawing and capital accounts as they would appear at the beginning of the second year.

Special Problems in Partnership Accounting

11.

(Form B)

The balance sheet of A, a single proprietor, appears as follows:

Sundry Assets.........	$35,000	A, Capital............	$35,000

A new proprietor B, is now admitted as a partner. B buys a half interest in the firm, paying A $15,000 and contributing cash and other property to the business to the amount of $15,000.

Give journal entries covering these transactions on the books of the new firm and prepare the first balance sheet of the partnership.

Suppose that C now buys A's interest in the partnership for $32,000. What would be the entries covering this transaction?

12.

"The purchase and sale price of a share in proprietorship in the case of a partnership is little more likely to indicate the book value of the firm's assets than is the price of a share of stock in the case of a corporation likely to prove a reliable index at all times of the book value of the corporation's assets."

Discuss.

13.

(Form B)

The following is the balance sheet of A and B, equal partners:

Assets		Equities	
Cash	$ 1,000	Accounts Payable	$ 5,000
Accounts Receivable	10,000	Notes Payable	7,000
Merchandise	5,000	A, Capital	10,500
Bldg. and Equip.	17,000	B, Capital	10,500
	$33,000		$33,000

What is the amount of proprietorship according to this statement?

The firm needs more capital and C is invited to become a partner. C investigates the situation and finds: that of the outstanding accounts probably $1,000 will never be collected; that the merchandise account should be written down $500 on account of shop wear and obsolescence; that accrued depreciation on building and equipment totals $1,500 and has never been booked. He offers to invest cash sufficient to give him a one-fourth interest on the basis of the corrected values as above outlined. A and B agree to this propostion.

Present journal entries which give effect to the new valuation and C's investment and exhibit the new balance sheet after these entries are made.

14.

(Form B)

The balance sheet of a partnership, in summary form, stands as follows:

Sundry Assets	$50,000	A, Capital	$30,000
A, Drawing	10,000	B, Capital	30,000
	$60,000		$60,000

C agrees to buy out A's equity, paying A $25,000 cash, and contributing $10,000 cash to the business, it being agreed thereupon that C is to be considered an equal partner with B.

Give journal entries covering A's withdrawal and C's entry, and present a new balance sheet at the conclusion of these transactions.

15.

(Form B)

(a) On Dec. 31, 1916, the balance sheet of X and Y, partners, in summary form stands as follows:

Merchandise	$20,000	X, Capital	$39,000
Receivables	30,000	Y, Capital	20,000
Cash	10,000	Y, Drawing	3,000
X, Drawing	5,000	Accounts Payable	3,000
	$65,000		$65,000

At this time it is agreed that Z shall be taken in as a new partner, to absorb enough of X's net interest and contribute sufficient cash and other property to make all three, X, Y, and Z, equal partners. Z insists that a long-standing customer's account amounting to $2,000 shall be written off as worthless. Z then turns over to the firm cash amounting to $6,000, equipment valued at $5,000, and pays X sufficient cash to effectuate the arrangement stated above.

Prepare journal entries showing Z's admission to the firm (closing the drawing accounts), and exhibit a balance sheet of the reorganized partnership.

(b) Using the balance sheet given under (a) above, assume that Z buys X out completely, paying him $45,000 cash and thereby acquiring a three-fifths interest in the business, that accounts receivable are adjusted as above; that X contributes no assets to the firm; and prepare journal entries and new balance sheet.

16.

"The partnership balance sheet may be constructed from several points of view. From a managerial standpoint only the business assets and liabilities need be considered. From the point of view of the creditors, however, there is something to be said in favor of a two-section statement, part of which should cover the affairs of the partnership as a business entity and part the outside financial interests of the individual partners."

Discuss.

17.

"Any transaction involving a genuine net revenue item from the standpoint of the business as a whole increases both of the underlying balance sheet classes by just the amount of the net earning. And since the credit to revenue and the concurrent charge to a partner on account of interest on drawings or "borrowings" does not satisfy this test there is no true revenue involved in such an adjustment."

Argue in support of this statement.

18.

A, a partner, borrows $12,000 from the firm on a 6% note running for one year, interest to be paid semiannually. At the end of 6 months A, being short of funds, makes an arrangement with the other partners that his capital account be charged for the amount of interest due. What account should be concurrently credited? At the end of the year a similar adjustment is made and the note is renewed. Explain fully the significance of such transactions. Suppose that A lost the borrowed funds speculating, would a creditor consider his position in any way disturbed?

19.

(Forms B and C)

L. T. Burman and George Wisner form a partnership, January 1, 1916, each investing $12,000. Income is to be divided share and share alike. On February 1, Burman becomes financially embarrassed and borrows $5,000 from the firm, giving his 90-day note at 6%. It is necessary at this time to take in another partner, H. D. Cumberland, who invests $6,000. The articles of co-partnership are amended in such a way as to require that each partner be credited at the close of the current year with 6% interest on his *net* investment from February 1. It is agreed that all residual income shall be divided in proportion to the equities of the partners as they appear at the end of each year, before any distribution of income has been made. Each suc-

ceeding year interest is to be credited to the partners' accounts for the entire year on the actual investments.

On May 1, Burman takes up the note mentioned above. He does not pay the interest in cash, but an agreement is made that his equity account is to be charged for the amount.

During the year Burman makes withdrawals as follows: March 15, $250; August 5, $175; December 31, $450. Wisner makes no withdrawals whatever, and Cumberland withdraws only the amount of net income accruing to him (and after a complete settlement is effectuated).

Net income for the year amounts to $3,750. This amount is credited to the partners' accounts in accordance with the above stipulations. It is agreed that the income for the month of January shall be considered as one-twelfth of the total.

Journalize all the above transactions in so far as the partners' accounts are affected, and prepare an exhibit of these accounts as they would appear Jan. 1, 1917.

20.

(Form B)

The balance sheet of Pryor Bros. appears as follows:

Equipment	$15,000	A. B. Pryor	$22,500
Merchandise	30,000	C. D. Pryor	20,000
Receivables	25,000	Notes Payable	10,500
Cash	100	Mortgage	20,000
A. B. Pryor, Drawing	300		
C. D. Pryor, Drawing	2,600		
	$73,000		$73,000

The partnership is forced into bankruptcy by a failure to meet interest charges. The holders of the notes and mortgages agree to pay $50,000 for the business as it stands. In this purchase the merchandise is valued at $22,000, receivables at $19,000, and equipment at $8,900. Assuming that profits and losses are shared equally by the partners, give the entries necessary to close the books of the partnership.

XII

CORPORATE PROPRIETORSHIP—CAPITAL STOCK

Corporate Proprietorship

1.

State the essential characteristics of corporate proprietorship. Explain the legal relationship between the corporate organization and the individual shareholder. Contrast the position of the investor in this form of organization with that of a partner in a co-partnership.

2.

Show that if the possibilities inherent in the corporate form of organization for subdividing the functions of ownership among investors were fully utilized in any case it would be a rather difficult matter to determine just which securities represented proprietorship and which represented liabilities.

3.

"Corporate proprietorship, in the sense of the stockholders' equity, is a highly conventional thing. Strictly speaking there is no proprietor other than the corporate entity itself. *The corporation owns the assets.* The individual stockholder has no title whatever to specific assets. He simply has a fractional interest in the asset *total.* The important concept for the accountant in this situation is that of a *residual* equity. Such an equity is the common stockholders'. It is in this figure, the difference between the asset total and the sum of the equitable interests of all other investors, that the estimates and judgments of the accountant,

the significant accounting processes, come to a focus. And it is the *trend* of this figure, its growth or diminution, which affords the most striking evidence of financial status which is furnished by the accounts."

Consider this statement carefully, and restate, with explanations, in your own words.

4.

The following represents one side of a corporation balance sheet:

Capital Stock (Common)	$150,000
Capital Stock (Preferred)	100,000
First Mortgage Bonds	150,000
Notes Payable	25,000
Accounts Payable	72,000
Other Current Liabilities	2,500
Undivided Profits	27,200
	$526,700

What is the amount of the common stockholders' equity as shown by this statement?

5.

On January 1, 1916, the capital stock of a corporation is $175,000; surplus is $12,000; mortgages and other liabilities proper amount to $40,000. The proprietary income during the year amounts to $25,000, of which amount $5,000 is paid in dividends. What is the excess of assets over outside liabilities, December 31, 1916? Prepare a balance sheet consistent with the information given.

6.

Explain why complete proprietorship accounts *must* be kept in the case of a corporation of any complexity. What are the principal situations giving rise to transactions which affect the proprietary accounts?

The Transition from Partnership to Corporation

7.

The assets of a partnership appear on the books at a total of $75,000. The liabilities amount to $20,000. A corporation is organized to take over the partnership, the authorized capital being $125,000, par $100. The partners are allowed a four-fifths interest in the corporation for their equities in the partnership assets, the corporation assuming the liabilities as they stand. The balance of the authorized stock is now sold at $60 per share.

Exhibit the corporation's first balance sheet, giving full explanation of any doubtful points.

8.

(Form B)

The balance sheet of A and B, equal partners, stands as follows just before the firm is taken over by a corporation:

Assets		Equities	
Real Estate and Imp.	$64,500	A, Capital	$30,000
Merchandise	15,900	B, Capital	30,000
Customers' Accounts	5,000	Accounts Payable	7,800
Cash	2,600	Notes Payable	20,200
	$88,000		$88,000

The new corporation receives all the assets except the cash and assumes the accounts payable but not the notes payable. Real estate and improvements are taken over at a value of $100,000, and the goodwill of the partners is considered to be worth $24,500. Payment is made to the partners as follows: Cash, $33,100; bonds of the corporation $50,000, and the balance in capital stock of the corporation.

Give the journal entries, with explanations, necessary to close the books of the firm. (Assume that the valuations which the corporation sets upon the firm's real estate and goodwill are bona fide).

Give opening entries on the books of the corporation as far as the above transactions are concerned.

9.

(Form B)

The following represents the condition of the ledger of C and D, partners, Dec. 31, 1919, after the process of closing is complete:

	Dr.	Cr.
Cash	$ 20,000	
Plant	60,000	
Merchandise Inventory	40,000	
Notes Receivable	20,000	
Customers' Accounts	70,000	
C, Drawings	15,000	
D, Drawings	5,000	
Accounts Payable		$ 10,000
C, Capital		150,000
D, Capital		50,000
Undivided Profits		20,000
	$230,000	$230,000

The partners now incorporate a company with an authorized capital, all in common stock, of $275,000. The company so formed buys all the assets and goodwill of the partnership, not including cash, for $250,000, payable $200,000 in stock of the new company and $50,000 cash; the cash is derived from E and F, who subscribe for and take stock to the amount of $75,000 at par. The accounts payable are to be settled by the partners. This arrangement is carried out. The articles of copartnership require that all profits be shared in proportion to the original investments (the capital account balances) of the partners. It is agreed between C and D, however, that, after all transactions with the corporation are completed, and the outstanding accounts are re-

tired, the final division of cash and securities shall be in proportion to the net book equities of the respective partners as they appear just prior to such division.

(a) Frame necessary journal entries to close the books of the partnership and show the amount of cash and securities received by each partner.

(b) Give the journal entries to open the books of the corporation and prepare a balance sheet for the corporation at the conclusion of these transactions.

10.

(Form B)

The Barnes brothers own and operate a small canning factory. Attracted by the high prices of war munitions they decide to build an addition to the factory building, remodel the machinery and buy some new equipment in order to enter this field. These changes will require about $25,000 of additional capital. It is decided to reorganize as a corporation in order that the business may be more conveniently expanded. The balance sheet of the partnership, in summary form, appears as follows:

Assets		Liabilities	
Plant and Equipment	$45,000	H. A. Barnes	$25,000
Materials and Supplies	28,000	J. W. Barnes	35,000
Cash	2,500	Accounts Payable	18,200
Other Current Assets	12,600	Notes Payable	9,000
		Accrued Items	900
	$88,100		$88,100

The partnership is reorganized as a corporation, the Barnes Manufacturing Co. Capital Stock is authorized to the amount of $125,000. The entire amount is subscribed at par. The partners receive $76,000 in stock; their equities in the partnership being considered as full payment. The holders of the partners' notes to the full amount of $9,000 are induced to take stock in the new

enterprise for the same amount. A steel company which has an open account against the partnership for $5,000 for materials purchased takes stock to that amount in full settlement of the account. The other subscriptions are all paid in cash. The liabilities of the partnership are assumed by the corporation, and the assets taken over.

Prepare:

(a) Closing entries for the partnership.

(b) Opening entries for the corporation.

(c) The balance sheet of the corporation as it appears after the conclusion of the foregoing transactions.

11.

(Form B)

E. B. Johnson and Son operate a fish farm. The firm's balance sheet, Dec. 31, 1916, appears as follows:

Assets		Liabilities	
Land	$15,000	E. B. Johnson	$15,000
Buildings	9,000	D. W. Johnson	10,000
Equipment	12,500	Mortgage	10,000
Receivables	750	Accounts Payable	2,950
Supplies	500		
Cash	200		
	$37,950		$37,950

The business is yielding a very high rate of return, and can fill but a small part of its orders. The partners estimate that additional equipment to cost $15,000 will make possible a 100% increase in output. To raise this capital it is decided to organize as a corporation. A capital of $75,000 is authorized. The partners agree to subscribe for 200 shares at par ($100), and to pay these subscriptions in cash, provided the balance of the stock is sold at par for cash. After the corporation is organized the partners turn over to the corporation the assets of the partnership

for a cash consideration of $60,000. The corporation is to assume the outstanding mortgage but the partners agree to retire all open accounts. The stock is sold through the personal solicitation of the partners, and the corporation is organized as above outlined. In their selling campaign the partners predict a wonderful future for the enterprise because of the uniqueness of the industry, the advantageous location of the plant, and the difficulties faced by competitors because of the peculiar skill required for successful operation. The stock is sold for the most part in small lots.

(a) Give the journal entries necessary to close the books of the partnership.

(b) Give the opening entries for the corporation.

(c) Prepare a balance sheet for the corporation, after the conclusion of the above transactions.

(d) Criticize the agreement made between the partners and the corporation.

Organization—Stock Issued for Cash and Other Assets

12.

(Form B)

One year later (continuing Problem 15, (a), Chapter XI) the partnership books, after closing, show sundry asset balances of $65,000; cash $10,000; sundry liabilities $15,000; a debit profit and loss balance, $6,000. The partner's accounts are unchanged. In the meantime Z has secured some munitions contracts and it is decided to incorporate and expand the business. The X Company is accordingly organized on Jan. 1, 1918, with an authorized capital of 2,000 shares common stock and 500 shares 8% preferred, par $100 in each case. S subscribes for 400 shares preferred at par; W subscribes for 50 shares preferred at par. Each of the partners subscribes for 500 shares common at $90. On Jan. 15, these subscriptions are paid as follows: S turns

over a plant which he owns and $5,000 cash. W pays cash. The partners turn over all the partnership assets (furnishing all necessary papers, and pay $25,000 cash each. The X Company assumes all partnership liabilities. On Jan. 16, 250 shares of common stock are made out in favor of Z and he assigns his contracts to the X Company. On Jan. 17, stock is issued covering all the paid subscriptions and the balance of the preferred stock is sold and issued to K at $95 per share.

Prepare closing entries for the partnership, opening entries for the X Company, and a balance sheet for the X Company at the conclusion of the foregoing.

13.

(Form B)

The Harvey and Crowder Company is a partnership engaged in a general mercantile business. The balance sheet on January 1, 1916, appears as follows:

Assets		Liabilities	
Real Estate	$26,000	L. W. Harvey	$25,500
Merchandise	79,200	John Crowder	61,000
Fixtures	4,600	Mortgage	25,000
Accounts Receivable	2,000	Notes Payable	4,500
Equipment	5,200	Accounts Payable	12,350
Misc. Supplies	2,900	Accrued Items	300
Prepaid Services	1,950		
Cash	6,800		
	$128,650		$128,650

A promoter, anticipating an expansion in this line of industry, organizes a corporation to be known as the Michigan Mercantile Company for the purpose of taking over the Harvey and Crowder Company. The authorized capital of the new company is $250,000, consisting of 1,750 shares of preferred, par 100, and the balance of common stock with the same par value. One share of common stock is to be given as a bonus with every

5 shares of preferred subscribed. Harvey subscribes $30,000 in the preferred capital stock of the new enterprise. Crowder subscribes for preferred stock to the amount of $50,000. Miscellaneous persons subscribe for 500 shares preferred. One hundred shares of common stock are sold for $10 per share. All the above subscriptions are paid. Harvey pays his subscription in full by turning over his equity in the partnership. Crowder secures his stock at the same rate of discount as does Harvey and receives cash for the balance of his equity in the old company. The liabilities of the partnership are assumed by the Michigan Mercantile Company as they stand, and all the assets are taken over.

Prepare:

(a) Closing entries for the partnership.

(b) Opening entries for the corporation.

(c) A balance sheet of the corporation at the conclusion of the foregoing transactions.

14.

(Form B)

The X Co. organizes under the laws of the state of Delaware to conduct a manufacturing business. The authorized capital is $1,000,000, par $100, divided equally between preferred and common stock. Five incorporators subscribe for 100 shares each of the common stock at par. These subscriptions are paid. An issue of bonds amounting to $500,000 is authorized. A Mr. Weston buys from three manufacturers their fully equipped plants for $950,000 cash. He then turns over these plants to the newly organized X Co. for the balance of the authorized stock issued, and $400,000 of the first mortgage, 5% bonds authorized. This leaves $100,000 of the said bonds in the Company's treasury.

Exhibit opening entries covering the above transactions on the books of X Co., and present a balance sheet statement of the Company's financial position at the conclusion of the foregoing. Discuss any doubtful points.

15.

(Form B)

The Black and White Co. was organized on Jan. 1, 1918, with an authorized capital (all common stock) of 10,000 shares, par $100. The stock was all subscribed at $90 per share, the subscription agreement (in the case of cash subscriptions) calling for payment in three equal monthly installments. The first installment was called Feb. 1. All installments were duly called and paid in full except in connection with one subscription covering a block of 50 shares. In this case the subscriber defaulted after paying one installment; and the amount paid in is not recoverable. All subscriptions call for cash with the exception of that of Mr. A. H. Black, who turned over the following assets in payment of a subscription for 5,000 shares: real estate, $100,000; buildings, $100,000; patents, $100,000; equipment, $100,000; merchandise, $30,000. These assets were turned over to the corporation on the date the third installment on cash subscriptions was called. The corporation paid Mr. Black $20,000 cash and allowed him $20,000 on his subscription for his services in organizing the company and securing certain government contracts. The shares obtained by subscription default are sold for cash on the market @ 85.

Prepare journal entries covering these opening transactions and exhibit the corporate balance sheet at their conclusion.

16.

(Form B)

A corporation is organized with an authorized capital stock of $200,000, par $10. Of this amount $180,000 is subscribed at a 10% discount. Subscriptions to the amount of $100,000 (par) are paid by turning over to the corporation a small manufacturing plant ready for operation; the remaining subscriptions are paid in cash. After a year's operation it is decided to reorganize in order to secure further working capital. Holders of 10,000 shares of stock are induced to subscribe at par for $100,000

of newly authorized preferred stock, par $100. These subscriptions are paid by surrendering the old stock certificates on the basis of $9 per share, the balance being paid in cash.

First mortgage bonds are authorized, $50,000, and are sold at par.

Give journal entries covering the above transactions, and prepare a balance sheet consistent with these occurrences.

17.

(Form B)

The A. and B. companies are competing manufacturing concerns. It is decided to organize an enterprise known as the A. B. Company for the purpose of combining the interests of the two companies. The A. Co. has an outstanding capital stock of $250,000 (par $100). On the last balance sheet of this company the Surplus account showed a balance of $50,000. Outside liabilities totaled $75,000. The B. Co. has a capital stock outstanding of $300,000. On the last balance sheet the Surplus appeared at $25,000. Other liabilities totaled $35,000. The A. B. Company has an authorized capital stock of $1,000,000. Subscriptions at par amounting to $520,000 are received. The subscriptions are paid as follows: (1) stock of the A. Co. to the amount of $225,000 at $120 per share; (2) stock of the B. Co. to the amount of $250,000 at par.

Give journal entries covering these transactions on the books of the A. B. Company, and prepare a balance sheet showing the status of the holding company at this time.

18.

(Form B)

Some months later (continuing Problem 17) further subscriptions are received in the stock of the A. B. Co. to the amount of $250,000 at par. These subscriptions are paid as follows: (1) stock of the A. Co. to the amount of $25,000 at $120 per share;

(2) stock of the B. Co. to the amount of $50,000 at par; (3) the balance in cash. The A. B. Co. assumes all the outside liabilities of the A. Co. (now increased by $10,000 over the last balance sheet figures) and immediately retires outstanding notes amounting to $25,000. The liabilities of the B. Co. (now decreased by $5,000) are assumed by the new corporation.

All the stock of the subsidiary companies having been purchased by the A. B. Co. the old organizations are dissolved and the assets are taken over. The assets of the A. Co. appear on the books of that company as follows: Plant and Machinery, $250,000; Receivables, $80,000; Supplies, $20,000; Cash, $5,000; Patents, $35,000. The Surplus account now shows a balance of $55,000. These assets are all taken over at their book value. The balance sheet of the B. Co. at this time shows assets as follows: Real Estate, $65,000; Machinery and Tools, $150,000; Materials and Supplies, $30,000; Receivables, $70,000; Patents, $30,000; Cash, $20,000. The Surplus account at this time shows an increase of $10,000. All the assets of the B. Co. are taken over at book value with the exception of the patents which are entered on the books of the A. B. Co. at a value of $5,000.

Prepare:

(a) An exhibit of the balance sheets of the subsidiary companies at the moment of the final merger.

(b) Closing entries for the A. and B. companies.

(c) The opening entries on the books of the A. B. Co.

(d) The balance sheet of the A. B. Co. at the conclusion of the above.

Donated and Treasury Stock

19.

Explain the nature of each of the following items: capital stock authorized; capital stock outstanding; stock subscribed; subscriptions; donated stock; treasury stock; donated surplus; discount on stock.

20.

(Form B)

A corporation is organized to exploit a mining property. Authorized capital is 5,000 shares, par $100. There are three original incorporators each of whom subscribes for 10 shares. These subscriptions are paid in cash. One of the incorporators is the owner of mineral lands which he now agrees to turn over to the corporation in exchange for 2,500 shares of stock. This transaction is consummated. Later this individual donates 750 shares of stock to the company to be sold to raise working capital. This stock is sold at a discount of 30%.

Give journal entries covering the foregoing transactions and prepare a balance sheet.

21.

"The distinction between authorized but unissued stock, donated stock, and treasury stock is not fundamental as far as the balance sheet is concerned. None of these items are in any degree assets. In fact, it may be said that in no case can the stocks, bonds, or other securities of a corporation constitute an asset in the hands of the issuing company, however acquired. It is a matter of no consequence that cash may be paid for such stock. A corporation may disburse cash for two main purposes, to acquire valuable structures, commodities, or services, or to *retire liabilities* and other equities. The 'purchase' of an outstanding security belongs to the second class.

"On the other hand, while donated stock cannot possibly represent an asset, the donated 'surplus' variously called 'working capital', 'reserve for stock donations,' and 'special stock premium') that arises may, conceivably, constitute a genuine capital surplus. It all depends upon the actual value of the property which the corporation originally receives from the donor of the stock. If this property is really worth more than the par value of the stock retired, a true stock premium has arisen."

Discuss, supporting the argument in the first paragraph by an analogy from the individual's affairs. Under what conditions

would a subscriber be willing to make a true donation, *i.e.*, pay a premium for his stock? In a particular case, how would you test, on the basis of subsequent events, the validity of the supposed premium?

22.

(Form B)

The X Mining Co. is incorporated with an authorized capital stock of $200,000, par $10 per share. Subscriptions for stock are taken to the amount of 15,500 shares at par. These subscriptions are paid as follows: mineral lands, $100,000; water rights, $54,000; the balance in cash. A, a stockholder who furnished the water rights as payment for a subscription of 6,000 shares, donates 4,000 shares to the corporation for the purpose of raising working capital. This stock is reissued at an average price of $8 per share.

(a) Journalize the above transactions, using only the general ledger accounts, and prepare a balance sheet, assuming the land and water rights have *bona fide* values as given above. In this event what premium does A really pay for his stock? How much does he actually lose?

(b) Assuming the water rights are worth but $16,000 how should the above entries and balance sheet be changed? Which of the two statements which you have prepared do you consider to be the most reliable expression of the Company's true position? Give reasons.

23.

(Form B)

Sometime later (referring to Problem 22 above) the directors of the X Company, finding that the ore deposits are becoming somewhat depleted and being in a strong cash position, decide to reduce the outstanding stock. They accordingly buy 1,000 shares. Five hundred shares are secured at book value, but they are forced to pay $12 per share for the remaining 500.

Give journal entries giving effect of these transactions. To

determine book value use the balance sheet which you prepared under (b) above and assume that the undistributed profits total $27,000.) How are the remaining stockholders affected by this procedure?

Subsidiary Proprietory Records

24.

Explain the function of each of the following books: subscription ledger, installment book, stock ledger, stock certificate book, stock journal. Are these books essential to the financial records of every corporation?

25.

(Forms B and C)

Journalize and post the following transactions covering the early history of the Sheel Mfg. Co.

July 5. The Company is incorporated. Authorized stock, all common, totals $50,000, par $10. A. S. Sheel, R. B. Sheel, and James Durfee subscribe at par for 1,000 shares each. Terms: $2 per share down, the balance to be paid in two equal installments due Sept. 30 and Dec. 30.

July 10. R. V. Squier subscribes for 100 shares; B. J. Lansing, 200 shares; W. D. Schmitz, 1,000 shares, and S. P. Rollins and D. R. Rich, 300 shares each. The terms of these subscriptions are the same as above.

Sept. 15. A call for the installment due on the 30th is sent the various subscribers.

Sept. 29. Checks are received from the Sheels, Durfee, and Rollins covering their installments due on the 30th.

Sept. 30. Checks are received for proper amounts from all remaining subscribers except R. V. Squier.

Nov. 10. Irving Abbot buys 50 shares of stock at par, paying cash. An appropriate certificate is made out and issued to him.

Nov. 15. R. V. Squier pays his past due installment with interest at 6% for the period since Sept. 30.

Dec. 15. Following lengthy negotiations a factory building is purchased from Sheel Bros., partners, for $15,000. A payment of $5,000 is made and the corporation gives its note for the balance.

Dec. 16. Irving Abbott sells his stock to R. B. Sheel for $11 per share.

Dec. 17, A call for the installment due Dec. 30th is sent to the various subscribers.

Dec. 28-30. Checks are received for all installments due.

Jan. 3. Certificates of stock are mailed to the various subscribers.

Jan. 25. B. J. Lansing sells 100 shares to R. V. Squier @ 9¾.

XIII

CORPORATE PROPRIETORSHIP—SURPLUS ACCOUNTS

Capital Surplus and Deficit

1.

(Form B)

The Superior and Western Copper Company organizes with an authorized capital of $2,000,000, all in common stock. The holders of this stock have invested cash, or assets equivalent to cash, amounting to $1,500,000. Give journal entries covering the organization transactions, and show the balance sheet as it would appear after these transactions are recorded.

2.

(Form B)

The Lapeer Merchants Bank organizes. Its authorized capital amounts to $200,000, divided into 2,000 shares of common stock. This stock is all subscribed at 120. The subscriptions are paid.

Journalize on the books of the corporation. What is the significance of the *premium on stock* item and account?

John Borlan buys 20 shares of this stock at 120. Give the entries covering this transaction on his books. Discuss the accounting procedure for this case.

3.

The X Company issues a block of preferred stock (par $10,000) @ $105, giving as a "bonus" therewith common stock of an equal par value. There is an established market for the common stock at $20.

Give summary journal entries covering this transaction on the X Co.'s books. Can there be any discount or premium especially applicable to preferred stock? In other words, can the proper accounting expression for the preferred stockholders' equity be more or less than par, depending upon the issuing price?

4.

A company's balance sheet stands as follows:

Assets		Liabilities	
Plant & Equipment	$1,500,000	Capital Stock	$1,600,000
Other Assets	200,000	Bonds	200,000
Discount on Stock	250,000	Surplus	150,000
	$1,950,000		$1,950,000

An auditing accountant recommends that *discount on stock* to the amount of $150,000 be charged against *surplus,* arguing that a company cannot show a deficit and a surplus at the same time. Give your opinion.

5.

A certain company paid cash dividends from its stock premiums. Explain just what this means and criticize.

6.

(Form B)

The Adventure Mining Co. issued its stock (10,000 shares, par $25) at $15 per share in 1908. In November, 1912, an assessment of $5 per share was called. The assessment was paid on all but 500 shares. These were forfeited to the Company because of this default and were sold by the Company at public auction for $8 per share.

Give journal entries on the books of the corporation covering the call, its payment, and the seizure and sale of the 500 shares on which assessments were defaulted. Show that the possibility that the amount of the discount may be required by the issuing

company (or by the courts in case of insolvency) gives an added reason for the retention of the amount of the discount as an accounting fact.

Accumulated Profit and Loss

7.

The assets of a company are as follows: Buildings, $42,600; Real Estate, $16,500; Merchandise, $31,800; Notes and Accounts Receivable, $10,200; Other Assets, $3,000. The formal equities are as follows: Capital Stock, $50,000; Mortgages, $20,000; Notes and Accounts Payable, $10,970; Miscellaneous Liabilities, $200. The stock was issued at par. Construct a balance sheet.

8.

(Form B)

The following represents one side of a corporation's balance sheet on December 31, 1915:

Capital Stock	$280,000
Bonds	165,000
Notes and Accounts Payable	220,000
Other Current Liabilities	12,600
	$677,600

The assets total $649,400. Stock and bonds were sold at par. The Expense and Revenue account December 31, 1916, shows a credit balance of $3,500. Interest requirements amount to $9,300. Assuming these charges are all met, journalize. Prepare a balance sheet as at December 31, 1916.

9.

A certain corporation has a cash balance of $12,000; the surplus account shows a credit balance of $75,000. The management decides to make extensive improvements on the plant calling for an immediate cash outlay of $50,000. At a meeting of the

directors called to consider the project the general manager asks the board to approve a plan for borrowing $45,000 on short-term paper. One director suggests that it would be good policy to use the surplus for making the necessary extensions, and thus avoid borrowing.

Explain to this director the fallacy in his suggestion.

10.

The auditor of an incorporated company which has been accustomed to making investments in interest-paying securities in making his statement to the directors presented a balance sheet showing a surplus of $65,000. After discussion the directors decided that they did not wish to declare a dividend out of the surplus and gave their auditor the following order: "Reduce the surplus by investing $50,000 in the bonds of the X Railroad Co."

Assuming that there was an item of cash, $75,000, in the aforesaid balance sheet, what effect will the carrying out of the directors' order have upon the surplus of $65,000. Explain carefully.

11.

"The juggling of depreciation charges or other improper accounting policies cannot be justified even if its purpose is to iron out the fluctuations in net revenue so that a stable dividend rate may be established."

Show that dividend appropriations may be stabilized by the use of the Undivided Profits account as a net revenue reservoir.

Dividend Appropriations

12.

(Form B)

The directors of the Jean-Roche Co., at their meeting on Jan. 2, 1921, declared a common stock dividend of $500,000, par, and a special dividend payable in $100,000, par, of the Company's

convertible 5% bonds, payable to common stockholders on March 1 to stock of record Feb. 1. In addition the regular cash dividend of 7% on the preferred stock outstanding (par $2,000,000) payable March 1, to stock of record Feb. 1, was declared.

(a) Give dated journal entries covering the declaration and payment of these dividends.

(b) Assuming that the stock of the Company is actively traded in, show that if a balance sheet were prepared on Feb. 28, the Dividends Payable account would not represent, exactly, an equity of the current list of stockholders.

(c) What effect will the *issue* of the stock dividend have upon the total book equity of the common stockholders? Upon the market price of the stock per share? Why should the rumor of such a dividend, and even its declaration, have an opposite effect upon selling value per share?

(d) If the Company's convertible bonds have an established market at $80 at the time of the bond dividend, how would you alter the entries made above, if at all?

13.

(Form B)

The Mono Distilling Co. decided to dispose of its finished stock by paying a dividend in merchandise. Accordingly goods having a cost (and book) value of $300,000 and a selling value of $800,000 were distributed to the stockholders.

Journalize the declaration and payment of this dividend, (a) assuming the Company had no undivided profits and (b) that the surplus account, prior to the declaration, showed a credit balance of $50,000.

14.

(Form B)

The Slidell Lumber Co. is organized to cut a definite tract of timber and provision is made for the dissolution of the Company as soon as its raw material is exhausted. For the year 1920, oper-

ating net revenue, after the deduction of adequate depletion, is $150,000. The surplus account at this time shows undivided profits from previous years of $25,000. The cash balance is $320,000, and the directors decide that they can pay a cash dividend of $275,000. Such a dividend is declared and paid.

Give journal entries and discuss.

15.

(Form B)

The proprietary accounts in the balance sheet of the B Co. stand as follows: Common Stock Authorized, $3,000,000; 6% Preferred Stock Authorized, $1,500,00; Unissued Common Stock, $1,000,000; Surplus, $2,700,000.

(a) What is the amount of proprietorship? What is the book value of the common stockholders' equity?

(b) The Company issues a stock dividend to the common shareholders for the amount of the authorized unissued stock. Give entries and discuss. What are the principal reasons underlying the issue of such dividends, so-called? What is there that is unfortunate about this practice from the accounting standpoint?

(c) The directors now decide that it would be wise to use a part of the remaining surplus to reduce the amount of preferred stock outstanding. Accordingly they instruct the treasurer to buy 5,000 shares on the open market. This instruction is carried out, the shares being secured at an average price of $96. Give journal entries and discuss.

16.

The United States Supreme Court has decided that stock "dividends" are not income to the recipient. Is this sound from an accounting standpoint? Are cash dividends income to the stockholder in the sense that his total wealth is increased through the receipt of such a dividend?

Sinking Fund Appropriations

17.

(Form B)

The balance sheet of a corporation, before any profits for the year have been distributed, shows the following figures in the right-hand column:

Capital Stock	$2,500,000
Bonded Debt	800,000
Notes Payable	50,000
Current Liabilities	67,000
Net Revenue for the Year.....	100,000
Surplus	100,000
	$3,617,000

The directors now declare a stock dividend of $125,000, a cash dividend of $40,000, and make an appropriation to Sinking Fund Reserve of $50,000. Give entries. Have you any criticism to pass on this action? If the bond contract requires the retention of $50,000, in profits, per year, have the bondholders any valid objection to this procedure?

18.

(Form B)

A bond issue of the Zenith Manufacturing Company carries a provision in the bond contract requiring an appropriation from income to Sinking Fund Reserve each year of $5,000. Give illustrative entries.

The directors of the Company decide of their own volition to set aside a fund of liquid assets each year of the same amount. Give illustrative entries.

Which action protects the bondholder most fully? Why?

19.

(Form B)

The X Co. issues 20-yr. bonds at par, $1,000,000. The sinking fund provision obtains both as to a fund and income. Each year an appropriation of $50,000 is made. At the end of 20 years the bonds are retired. Give balance sheet in summary form at beginning and end of the 20-year period; and give the journal entries covering one year's appropriations and the retirement of the bonds.

Miscellaneous Surplus Transactions and Appropriations

20.

(Form B)

In general ledger of the Y Co. appear (among others) the following credit balances on Dec. 31 for each of the years named:

	1918	1919
Reserve for Federal Taxes	$ 50,000	$ 40,000
Reserve for Depreciation	160,000	180,000
Reserve for Maintenance	5,000	2,000
Reserve for Doubtful Accounts	3,000	4,000
Reserve for Sinking Fund	200,000	220,000
Reserve for Possible Obsolescence	50,000	55,000
Reserve for Extensions	300,000	300,000
Reserve for Possible Inventory Loss	25,000	....

Explain carefully the probable meaning and origin of each of these accounts and give journal entries which might account for the changes occuring during 1919.

21.

The right-hand side of a corporation balance sheet appears as follows:

Capital Stock	$1,000,000
Bonds	500,000
Reserve for Contingencies.....	10,000

Notes and Accounts Payable...	270,000
Sinking Fund Reserve	125,000
Surplus	110,000
Reserve for Improvements....	60,000
Dividends Payable	20,000
Accrued Liabilities	26,000
	$2,121,000

What is the stockholder's equity as shown by this statement? Give the argument for and against considering the dividend item as part of proprietorship.

22.

(Form B)

The officers of a small corporation have never charged their salaries to expense, but the excess-profit tax induces them to adopt this procedure. There are three officers: president, secretary-treasurer, and general manager. These same officers also own the entire capital stock of the corporation. Salaries are charged to expense as follows: president, $1,000; secretary-treasurer, $1,500; general manager, $2,500. None of these amounts are withdrawn in cash, however, as the stockholders prefer to leave the money in the business.

Explain a method of recording this situation in the accounts, giving journal entries. Later, stock in appropriate amounts is issued to cover these undrawn salary balances. Journalize.

23.

(Form B)

(a) An officer of a corporation misappropriated $15,000 in cash. Three years later he returns the stolen funds with simple interest at 6%. Journalize both occurrences.

(b) A railroad corporation with a surplus of $140,000 is obliged to pay back taxes amounting to $37,000. Give journal entries on the corporation's books.

24.

(Form B)

The operating expenses of the X Co. during 1919 totaled $3,420,000; sales amounted to $4,800,000; miscellaneous income equaled $105,000. In view of this information, and other data laid before them, the directors take action as follows: (1) reserve for accrued interest charges, $300,000; (2) vote a bonus to the president and principal stockholder of $25,000, to be paid out of earnings, as a compensation for exceptional services performed; (3) reserve 20% of net proprietary income for estimated federal taxes; (4) appropriate $200,000 out of earnings to be used for plant extensions; (5) declare a cash dividend on the preferred stock of $150,000 and a stock dividend on the common stock of $300,000; (6) appropriate $50,000 to provide for the fact that inadequate depreciation allowances were made in 1918; (7) carry the balance of earnings to undivided profits account.

Present journal entries giving effect to the above.

25.

(Form B)

Selber Mfg. Co., Dec. 31, 1919

Assets		Liabilities and Capital	
Real Estate	$1,400,000	Cap. Stock—Com.	$5,000,000
New Plant	500,000	Cap. Stock—Pref.	250,000
Equip. and Tools	2,200,000	Mortgage Bonds	500,000
Pat'ns, Dies, Models.	50,000	Promissory Notes	50,000
Materials and Sup.	400,000	Div. Payable—Com.	100,000
Pat'ts and Tradem'ks	550,000	Res. for Improve.	500,000
Work in Progress	200,000	Res. for Fed. Taxes.	20,000
Finished Stock	200,000	Fire Reserves	30,000
Accts. Receivable	690,000	Undivided Profits	250,000
Cash	800,000	Merch. Creditors	580,000
Prepaid Items	20,000	Accrued Items	10,000
Bond Sinking Fund	300,000	Advances from X Co.	20,000
	$7,310,000		$7,310,000

(a) What is the equity of the common stockholders according to this statement? What is the book value per share assuming par to be $50? Assuming that the preferred stock was originally issued at par and the common stock at $40, and that no shares have been retired, what is the total accumulated profit to date?

(b) Assume that on Jan. 5, 1920, the Company decided to redeem the entire issue of preferred stock at $120 (par being $100). Exhibit journal entries giving effect to this procedure in the accounts, and state concisely the significance of this transaction from the standpoint of the common stockholders.

(c) Give entries, in summary, showing the origin of each of the following: Undivided Profits, $250,000; New Plant, $500,000; Reserve for Improvements, $500,000; Accrued Items, $10,000; Reserve for Federal Taxes, $20,000; Fire Reserves, $30,000; Advances from the X Co., $20,000.

(d) The "Bond Sinking Fund" account, you discover, represents bonds of the Selber Mfg. Co. which have been bought on the open market at an average price of $80. Give the journal entries that were made covering this purchase, and discuss.

26.

The 1921 advertising budget of the Winslow Food Products Co. calls for an expenditure of $1,200,000. This amount, however, is likely to be *disbursed* very unevenly throughout the year. The amount of advertising cost *incurred* month by month will likewise vary sharply. The books are closed and financial statements prepared at the close of each month.

Outline a system of entries and accounts by which may be shown the value of advertising services acquired each month, the payments on advertising account per period, and which will result, however, in a net charge to revenue each month of $100,000 for advertising expense. Assuming sales run approxiamtely even month by month would such a scheme of accounting be justified?

XIV

THE LIABILITIES

Accounts and Notes Payable

1.

Explain the distinction between *funded* debt and *floating* indebtedness. Why is it important to maintain this classification in the accounts?

2.

"Any single account payable represents a debtor-creditor relationship rather than an equity in the generally accepted sense. On the other hand the *total* of the accounts payable item on the balance sheet may represent a considerable part of a company's capitalization and, therefore, constitute a significant equity."

Explain.

3.

(Form B)

The X Co. buys goods on account during its first accounting period with a gross price of $500,000. Possible discounts on these purchases amount to $10,000. The X Co. pays creditors during the period $400,000, thereby taking advantage of discounts offered to the amount of $8,000. No discounts are allowed to lapse. The inventory of merchandise at the end of the period, at gross price, is $75,000. Discounts taken and to be taken applicable thereto total $1,500.

Giving journal entries and full explanations outline a method by which the discounts yet to be taken may be recognized in the determination of a rational merchandise cost of sales figure and in the setting of a correct liability in the balance sheet. Show the way in which, in the operating statement, the merchandise cost of sales figure would be exhibited.

4.

Explain the commercial distinction between promissory notes and accounts payable. Is there a legal distinction?

Name several types of promissory evidences of indebtedness which are commonly recorded in the accounts as notes payable.

Accrued, Deferred and Contingent Liabilities

5.

What is meant by an *accrued* liability? Give an illustration, showing the journal entries which are made at the time such a liability is recognized in the accounts.

6.

"Wages payable are not an accrued liability. Such items are in essentially the same class as the merchandise accounts payable. The business enterprise commonly buys labor services on account just as it buys merchandise. Ideally charges should be made daily to a Labor Services account and concurrent credits should be entered in the Payroll Payable account. (Entries should also be made in the account—on a card, ticket, book or other device—of each individual laborer, just as credit is given the individual merchandise creditor.) When payments are made Payroll Payable (and the appropriate individual accounts) should be charged. The balance of the Payroll Payable account at any time represents a definite equity in the business."

Discuss.

7.

Define "deferred" liability and give several examples. Show that the designation is really a misnomer, since all liabilities are deferred.

8.

State what is meant by a contingent liability and show how the same may be treated in the accounts and in the financial reports.

Mortgages and Bonds

9.

What is the essential difference between the position of a mortgageholder and that of a bondholder in a business enterprise?

10.

"The bondholder must be thought of as an investor and not merely as a creditor. Particular issues are retired from time to time, it is true, but bonds and similar securities represent a large part of the essentially permanent capitalization of many corporations. Taking American railways as a whole, bond equities are as large in amount as the capital stock issued."

Argue in support of this position.

11.

Look up the balance sheet of some large corporation and note the different classes of bonds outstanding. (Moody's Manual of Corporation Securities furnishes an abundance of material for this purpose).

12.

Scrutinize the liability side of the railway balance sheet given in Appendix C of the textbook.

13.

Why are income bonds usually a rather unsafe investment? Why is sound accounting of particular importance to the income bondholder?

14.

On the basis of your studies in Part Two of the text, draw up a schedule of equities which might represent the equity side of a corporation balance sheet assuming that the corporation has used each important device for obtaining capital. Arrange the list in the probable order of priority to income and assets.

XV

GENERAL ANALYSIS OF THE INTEREST PROBLEM

The Interest Phenomenon

1.

Explain what is meant by the terms *explicit* interest and implicit interest. Give illustrations.

2.

Why are loans generally classified into long-term, and short-term obligations? What is the basis for the distinction? Give illustrations of each type.

3.

Mr. Smith owns a leasehold which yields a net income of $10,000 per year. The lease expires in ten years. The X Co. offers Mr. Smith $73,600.87 for the leasehold.

(a) Show how interest is involved in this transaction.

(b) If interest were not involved what would the X Co.'s offer have been?

(c) After making this purchase, how would the X Co. subdivide in its books each annual installment of $10,000.

4.

An advertisement of a well-known make of automobile appearing in a magazine some time ago had in it a statement that ran somewhat as follows:

"We have no bonds outstanding on which interest must be paid. Most of our competitors do have bonds issued on which interest must be paid regularly. Our costs are therefore lower and we can sell at a lower price."

Is this statement reasonable? Explain carefully.

5.

A manufacturing concern employs 10 men on a certain operation, paying them each $6 per day. It is necessary for the firm to keep a fund of approximately $600, continuously, to meet its payroll for these men. An automatic machine is invented which will do the work of these 10 men and require only one "three-dollar" man to tend it. This machine costs $10,000, and therefore requires a capital outlay of that amount.

Show that the manager of this plant must recognize interest in determining whether or not he will buy the machine. Explain fully.

Commercial Interest

6.

Give an argument in support of the current practice of considering commercial interest as an expense rather than as a deduction from net revenue.

7.

Explain and illustrate the difference between the *rate* of interest and the *rate* of discount.

8.

Name at least four types of commercial paper which might be included in the general category, *notes payable.* Illustrate each one by drawing up an illustration in proper legal form.[1]

9.

One of the most important considerations in the preparation of accounting statements is the separation of unlike items into distinct classes. The amount of notes payable, for example, should never be offset by notes receivable, either in the accounts or in the balance sheet. It is maintained in this chapter of the textbook,

[1] The student should study these forms as presented in some recent book.

however, that interest on notes payable and interest on notes receivable, can, under certain circumstances, be properly placed in the opposite columns of a single account and can be combined in one figure for income sheet purposes.

Can you justify this position?

10.

(Form B)

On Dec. 6, 1919, the X Co. receives a $1,000, 6% note signed by Y, a customer, to apply on Y's account for the amount of the face. The note is dated Dec. 1, 1919, and runs for one year. On Sept. 1, 1920, the X Co. discounts this note and interest at the Z Bank at 8%.

Prepare journal entries covering this situation on the X Co.'s books, assuming the Company closes its books on Dec. 31 and June 30.

Long Term Securities

11.

"Interest on long-term securities should always be treated as a net revenue item, although commercial interest may reasonably be considered as a gross revenue charge or credit."

Argue in support of this view.

12.

"The order in which the interest items appear in the net revenue statement is governed by contract."

What parties are concerned in the contracts referred to and how do these contracts influence the order of the interest items?

13.

(Form B)

The A Co. issued $100,000 (par value) of 6%, 10-year bonds, interest payable semiannually, on June 1, 1921, for $107,795. This price is sufficient to yield the investor a rate of 5%.

(a) Give the entries on the A Co.'s books to record, in summary, the issue of these bonds.

(b) Give the entries recording the payment of the semiannual interest on Dec. 1, 1921, and June 1, 1922.

14.

(Form B)

The B Co. issued $100,000 (par value) of 6%, 10-year, bonds, interest payable semiannually, on June 1, 1921, for $92,-894. This price yields the investor 7%.

Answer the same questions as were asked in Problem 13.

15.

Prepare tables showing the amortization of premium and the accumulation of discount for the bonds described in Problems 13 and 14, respectively.

Interest in Valuations

16.

(Form B)

Give the entries on the books of the investor in the bonds of the A Co. (Problem 13) and of the B Co. (Problem 14) on the date of purchase and at the first and second interest payment dates, assuming no changes in the market rate of interest. (Assume a single purchaser in each case.)

17.

The X Co. is considering the purchase of all the assets and business connections of the Y Co. The Y Co. shows that it has an advantage over all competitors that brings in an annual income of $20,000. In the sale of its business the Y Co. asks $229,400 over and above the price for all other assets, to cover this advantage, or *goodwill*.

How was this valuation obtained? Discuss fully.

XVI

INTEREST CALCULATIONS

THE ACCUMULATION OF PRINCIPAL

1.

Explain the distinction between simple and compound interest. Show in tabular form the amounts to which $1,500 would accumulate in 90 days, 6 months, and 3 years, respectively, first using a 6% simple interest rate and, second, a 6% rate, interest convertible quarterly.

2.

Mortgage rates calling for the payment of 7% payable semiannually, bear what *effective* rate of interest?

3.

If a firm desires to issue some notes bearing an effective rate of 7% but wishes to pay the interest in semiannual installments, what *nominal* rate must be used?

THE PRESENT VALUE OF A FUTURE SUM

4.

The legal rate of interest is 8% in some states. If the banks in these sections use an 8% rate of discount on commercial paper, what rate of interest does the borrower really pay?

5.

In case a bank wishes to discount a 60-day, $1,000 note at a rate sufficient to yield an 8% rate of interest, what rate of discount should be used?

6.

The X Co. offers as an investment its own promise to pay $100,000 due 5 years from date.

(a) Prepare a bid on this security with interest at the rate of 6%, convertible annually.

(b) Prepare another bid at 8%, convertible semiannually.

The Accumulation of an Annuity

7.

If the amount of $200 were placed in a savings bank every 6 months, and the bank allowed 4% interest convertible semiannually, how much would be on deposit at the end of 8 years? At the end of 10 years?

8.

Suppose that $400 were deposited in the bank at the end of each year and the bank allowed 4%, convertible semiannually.

How much would be on deposit at the end of 8 years? At the end of 10 years.

9.

The sum of $100 is placed in a bank at the end of each 3 months' period. The bank computes interest at the rate of 4%, convertible semiannually.

What will be the amount on deposit at the end of 8 years? At the end of 10 years?

10.

The sum of $50 is placed with a building and loan association at the end of each month. The association computes interest at the rate of 6%, convertible semiannually.

What will be the amount in the fund at the end of 10 years?

Present Worth of an Annuity

11.

The X Co. offers for investment a 5-year annuity of $4,000 per year, payable in equal semiannual installments. Prepare bids for this annuity at the following rates of interest: (a) 6%, convertible annually; (b) 6%, convertible semiannually; (c) 8%, convertible semiannually; (d) 8%, convertible quarterly.

12.

How much could you afford to pay for a 10-year annuity of $3,600, payable in equal monthly installments, if you considered 8% convertible semiannually as a fair rate of interest?

13.

The X Railroad Co. has paid a 6% dividend on its stock for several years. There is every indication that it will pay this rate continuously in the future. Assuming that this sort of investment should yield the investor 8%, what would be the value of the stock, the par value being $100?

14.

Select a stock issue from the financial page of a newspaper. Find the current dividend yield and value of the stock on a 7%, 8% and 9% basis, respectively. Compare each of your valuations with the quotation given in the paper.

Sinking Fund Contributions

15.

The Smith Auto Wheel Co. issued $100,000, par, of 20-year bonds. There is a sinking fund clause in the bond contract which requires the Company to place in the hands of a trustee each year an amount which will accumulate to the par of the bonds at maturity.

(a) If the rate which can be realized by the trustee is 4½%, convertible annually, what should the annual contribution be?

(b) If the rate of interest obtained by the trustee is 5%, convertible semiannually, what would the annual contribution be?

The Annuity Which a Principal Will Purchase

16.

Mrs. George Jones has just received the principal of a life insurance policy amounting to $10,000. She desires to invest the funds in an annuity which will run for 10 years. Assuming that the market rate of interest for securities of the type she is willing to accept were 5%, convertible semiannually, how large an annuity could be purchased, assuming the annuity payments to be made semiannually? Suppose the interest rate involved were 8% convertible semiannually, what would be the amount of the semiannual payment?

The Apportionment of Annuity Payments

17.

Prepare a table showing the distribution of the annuity payments between principal and interest for the annuity mentioned in Problem 16 for each of the rates of interest given.

18.

(a) What would be the purchase price of a leasehold that would produce an annual net revenue of $4,000, for 18 years, at an interest rate of 6%, convertible annually?

(b) Prepare a table showing the distribution of each payment mentioned in (a) above, between principal and interest.

The Valuation of Bonds

19.

Prepare a bid for an issue of $100,000 of the X Co.'s 5-year, 4% bonds, interest payable semiannually, on a 6% and 8% basis, respectively, interest convertible semiannually. Compare your results with the sums of the results obtained in Problems 6 and 11 for the same rates of interest.

20.

Select a bond advertisement from the financial page of a current newspaper and prepare a bid based on what you consider to be the market rate of interest. Compare your bid with the price quoted in the advertisement.

21.

The Johnson Wagon Company has issued $1,000,000 (par) of 6%, 5-year bonds, interest payable semiannually. The bonds were issued on a 7% basis, interest convertible semiannually. Prepare a table showing the accumulation of discount.

22.

Suppose that the bonds mentioned in the preceding problem had carried a 7% rate and were issued at a price to yield 6%. Prepare a table showing the amortization of premium.

23.

From an advertisement in the Cincinnati Enquirer, for Sunday, June 19, 1921: "$1,250,000, Cincinnati, Ohio, 5% Gold Bonds. Dated July 1, 1920. Due July 1, 1965. Price of......, yielding approximately 5.40%."

Fill in the price quotation.

Determining the Interest Rate

24.

The price paid for an issue of $100,000, par, of 20-year 4% bonds, interest payable semiannually, was $93,411.61. What rate of interest was used in this valuation?

25.

Suppose the price of the bonds mentioned in the preceding problem had been $107,148.53. What interest rate would have been involved in the valuation?

XVII

INTEREST TRANSACTIONS—EQUITY ACCOUNTS

Long-Term Non-Interest Bearing Notes

1.

Under what conditions would it be advisable for an enterprise to issue a long-term, non-interest bearing note? To what type of investor would this form of security appeal?

2.

The Mercantile Trade Co. borrows a sum of money on a $15,000 (face) 5-year, non-interest bearing note. The loan is negotiated on a 7% basis, interest convertible semiannually.

(a) Give the journal entries at the date the note is issued.

(b) Prepare a table showing the accumulation of interest by half-year periods throughout the 5 years.

3.

If the note mentioned in Problem 2 had been dated June 30 but was issued Sept. 30, what would the entries have been on the latter date?

Annuities

4.

(Form B)

The Williamston Mining Co. agrees to pay $75,000 per year for 10 years, payable in equal semiannual installments, in exchange for ore rights in a tract of land. What entries should be

made to recognize the acquisition of the ore rights, assuming an 8% rate of interest convertible semiannually? What entries should be made covering the first two installments?

5.

(Form B)

Suppose that the annuity installments (Problem 4) are paid on Aug. 1 and Feb. 1, but that the Company's books are closed on Dec. 31. What entries should be made on the first closing date? (Assume that the annuity was issued on Feb. 1 and that the first installment was paid on Aug. 1.)

Bonds Issued at Par

6.

Explain the significance in the accounting records of the par value of bonds.

7.

(Form B)

The Halter Co. issued at par $100,000 of 6%, 10-year bonds, interest payable semiannually. Give the entries recording the issue, and the first two interest payments.

8.

(Form B)

Assume that the bonds mentioned in Problem 7 were dated June 1 and that the interest payments are made on Dec. 1 and June 1. Suppose further that a block of $25,000 was sold on June 1; $25,000 on July 1; $25,000 on Aug. 1; and $25,000 on Sept. 1.

Give entries covering the sale of each block, the payment of bond interest on Dec. 1, and the closing entries on Dec. 31.

Bonds Issued at a Discount

9.

(Form B)

A certain corporation issued $100,000, par, of 4%, 20-year bonds on a 6% basis, interest payable and convertible semiannually.

(a) Give the entries on the date of issue.

(b) Give the entries on the corporation's books at the first interest payment date.

10.

(Form B)

Suppose that the bonds described in Problem 9 were dated April 1, 1921, and that the sales were made as follows: $15,000 on April 1; $30,000 May 1; $50,000 June 1; and the balance on July 1.

Give the journal entries covering the sale of each block and the payment of the bond interest on Oct. 1, 1921. Give the entries on Dec. 31, 1921, when the books are closed.

11.

(Form B)

A construction company is asked to furnish bids for the construction of a factory building for the A Co. According to the bids received the construction company will build the structure for $500,000 cash, or for $515,000, par, in the A Co.'s 5% bonds.

Give the journal entries on the A Co.'s books assuming respectively: (a) that the cash bid is accepted; (b) that the 4% bond bid is accepted.

12.

The A Co. (Problem 11) accepted the 4% bond bid and the president of the company requests the accountant to make these entries:

Building	$515,000	
Bonds—Par		$515,000

He argues that the additional $15,000 over the cash bid is a cost of obtaining the necessary capital to build the factory and hence is a property charge just the same as the salary of the draftsman who draws the necessary plans is a property charge.

Give your opinion of the president's argument.

13.

(a) A corporation issued $500,000, par, of 5%, 10-year bonds, and received $450,000 cash. The bookkeeper made the following entries:

Cash	$450,000	
Bonds		$450,000

Is there anything fundamently wrong with these entries? Explain carefully.

(b) Suppose that the bookkeeper—(a) above—made the following entries at each semiannual interest payment date:

Interest	$12,500	
Cash		$12,500

Would there be an error involved in these entries? Explain fully. If this method of accounting is followed throughout the 10-year period what entries would have to be made at the date the bonds mature and are paid?

14.

(a) It is the practice of some corporations to charge discount on bonds to Surplus account at the date of issue. Discuss. Show that if the discount were of significant amount the rights of particular investors and classes of investors might be disturbed by such a practice.

(b) Would you object to the practice of charging discount on capital stock issued directly to undivided profits? Explain the difference between discount on bonds and discount on stocks.

15.

(Form B)

The Crown Smelting Co. has outstanding an issue of mortgage bonds due Jan. 1, 1930. The par of the issue is \$100,000; and it carries a 6% rate, "interest" payable semiannually. On Jan. 1, 1920, the Discount on Mortgage Bonds account on the Company's books shows a balance of \$13,591.31. Assuming that the true rate of interest in this case is 8%, convertible semiannually, and that the Company closes its books on June 30 and Dec. 31 (which are also the "interest" payment dates) prepare the journal entries, with respect to this bond issue, which should be made on these dates.

In 1921 the Company's accountant decides to close the books every quarter. Give the entries, with respect to the bond issue, on the first two closing dates of the year.

16.

(Form B)

An 8% debenture, par \$1,000, is sold Dec. 31, 1917, at a price to yield 10%, convertible semiannually. The interest is payable semiannually. The date of maturity is Dec. 31, 1919. What entries should be made on the books of the issuing company to record:

(a) The issue of the bond.

(b) The four "bond interest" payments.

(c) The payment of the bond.

17.

Explain briefly the importance of the analysis recognized by your entries (preceding problem) upon the integrity of the income sheet and balance sheet of the corporation. Show that the par of this bond was not the effective liability at the date of issue.

18.

(Form B)

On Jan. 1, 1920, the W Co. issued a block (par $100,000) of 5% debenture bonds, dated as of the date of issue. Subscribers pay par but receive as a bonus 1,000 shares (par 100) of the Company's common stock. This stock has an established market price of $10 per share.

(a) Give journal entries on the W Co's books.

(b) Assuming bond "interest" is paid semiannually, that the effective rate involved in the transaction is 8%, and that the Company closes its books only on the last day of the year, give the journal entries which should be made on the corporate books on the first two "interest" payment dates.

(c) Do the same assuming the corporation closes its books each year on Sept. 30.

Bonds Issued at a Premium

19.

(Form B)

A corporation issues a block of 20-year, 7% bonds at a market rate of 6%, realizing $111,500. Assuming that interest is paid semiannually and that the corporation closes its books only on interest payment dates, give the journal entries on the corporation's books at date of issue, the first two interest payment dates, and at maturity.

Suppose the books of this company were closed 3 months after the issue of the bonds and again 3 months later. Give the journal entries with respect to these bonds and the interest thereon, under this assumption, at these two closing dates.

State precisely the significance of this bond premium, and show the effect of a neglect to amortize it.

20.

(Form B)

(a) The Worcester Arms Co. offers the X Investment Co. a 10-year note, face or par $500,000, carrying an annuity of 8%, payable semiannually. The notes are dated Jan. 1, 1920. The investment company subscribes at a price which will yield 7% interest, convertible semiannually.

Give journal entries on the books of the Worcester Arms Co. at date of issue, at the first two "interest" payment dates, and at maturity. Explain the effects of your entries upon the income sheet and balance sheet of the Worcester Arms Co.

(b) Suppose that the Worcester Arms Co. closes its books and prepares statements on the last day of each month. Suppose further that the subscription of the X Investment Co. is not received until Jan. 15, and that the subscription is not paid until Jan. 31.

Give the entries, with respect to this note ((a) above) at the date of issue, on May 31, on June 30, and on July 1, on the books of the Worcester Arms Co.

21.

"The failure to amortize a bond premium throughout the life of the security, or the crediting of such premium directly to Surplus account at time of issue, are improper accounting practices, less serious from the practical standpoint, however, than the corresponding mistakes in connection with bond discounts."

Explain and support this statement.

22.

A bond issue, rate 7%, par $100,000, was emitted at the beginning of 1920, at a price of $105,000. This gave a yield of approximately 6%. At the first interest payment date the issuing company's accountant, following the practice of many account-

ants and the regulations of the Bureau of Internal Revenue, made entries as follows:

Interest	$3,500	
Cash		$3,500

and,

Unamortized Bond Premium	350	
Amortization of Prem...		350.

He justifies this procedure on the basis of the view that bond premium is really a deferred revenue item, which is realized gradually during the life of the security. The credit to "Amortization of Premium," accordingly, is an income item.

Discuss critically.

23.

"When a closing date comes between "interest" payment dates, it is important that the true charge to interest be accrued but it is not necessary to accrue the premium amortization."

Explain carefully.

The Refunding of Securities and Miscellaneous

24.

Show that changes in the market rate of interest need not be recognized on the books of the issuing company once the entire issue has been emitted. Show that while the issuer, in principle, can "buy" back outstanding bonds on the open market, there is little likelihood that a corporation can, as a practical matter, undertake any such operation on a large scale. (In answering this question look up the current quotations of standard railway bonds in some financial paper and note the very marked discounts at which some low-interest issues are selling. Then ask yourself this question: Why does not the issuing company take advantage of such an opportunity to reduce its indebtedness, instead of waiting until maturity, at which time par must be paid?)

25.

Study carefully the following statements, and make comments as called for:

(a) The actual flotation of a large issue of bonds or other contractual securities is not a simple matter like selling merchandise across the counter. In the first place the legal arrangements, such as the preparation of the underlying mortgages or other instruments, must be completed. Amounts, rates, prices, etc., must be decided upon. If the issue is placed through general subscriptions, these subscriptions must be secured. Payments by subscribers, usually in a series of installments, must be called in and accounted for. Finally the security itself must be drawn up and issued to the various investors. This whole process may consume months of time and require a great deal of routine bookkeeping. The flotation of the "Liberty" loans, furnishes an illustration, on a tremendous scale, of these complexities. The student should remember that the cases with which he has been dealing are much simplified and summarized, for the most part, as compared with the actual situation.

(b) In the emission of bonds an "asked" price, which it is believed market conditions will warrant, is frequently made up in advance. The advertising circulars give this price, prepared by the issuing company or its brokers, and the true "yield" to the investor. But of course it may be necessary to revise this price. A sale cannot always be forced at the initial figure. In the long run it is actually true that demand and supply settle bond prices in much the same manner that commodity prices are determined. Thus a particular issue may be "sold" in blocks at a series of prices. In such a case, evidently, there are several "true" interest rates. It would be impractical to attempt to follow each block separately in the accounts, however. As soon as the entire issue is out an average true rate should be determined and used thereafter in working out accumulation and amortization.

(c) The student should keep in mind the fact that the actual date of the bond, in practice, may not coincide with the begin-

ning of an accounting period, nor with the date that the cash or other property is received therefor. Further, the interest period is quite likely not to coincide with the accounting period.

(d) In some cases an entire issue is virtually "sold" to a brokerage or investment banking house (a security-jobber). If title passes, in such a case, the transaction is complete as far as the issuing company is concerned, the price at which the ultimate investor secures his bond being of no more consequence in the issuer's accounts than the price the consumer of canned soup finally pays is in the books of the manufacturer thereof. In other cases the broker undertakes to place the issue at an agreed commission. In still other instances the issuing corporation endeavors to reach the actual investor through its own salesmen. In these last two situations we have a distinctive accounting problem.

Suppose, to make the problem concrete, the X Co. authorizes a bond issue of $100,000. The issue is sold by special salesmen at an average price to the investor of 98; and a commission of $3 per every $100 (par) is paid to salesmen. Outline, giving the journal entries, a method of accounting for this case, explaining the nature of all accounts used.

XVIII

INTEREST TRANSACTIONS—ASSET ACCOUNTS

Investments in Securities.

1.

Under what circumstances would it be proper for the owner of securities to ignore market changes in the rate of interest?

2.

In the published statements of life insurance companies are usually two valuations for securities owned. One is called book value and the other market value.

What do you understand is the difference betwen these two valuations? Which is the more important?

3.

Stock and bond speculators keep in close touch with market quotations throughout each day. Changes in value during the day must be recognized immediately.

Why is the market of such importance in this case?

4.

(Form B)

An annuity of $5,000, payable semiannually for 20 years, was purchased by a corporation on a 5% basis, interest convertible semiannually. The date of purchase was Sept. 30.

(a) Give the entries on the date of purchase.

(b) Give the entries on Dec. 31, the date the books are closed.

(c) Give the entries on the following March 31, when the first semiannual installment is received.

5.

(Form B)

On June 30, following, (Problem 4) the corporation sells the annuity. At this time the market rate of interest is 6%.

(a) Give the entries recording the sale.

(b) Give the entries on the books of the new owner.

6.

If the corporation had not sold the annuity (Problem 5) on June 30, would the change in the market rate of interest have been recognized? Give the entries that would have been necessary in this event to show the new value on a 6% basis.

7.

(Form B)

A 7%, $1,000 bond which matures June 30, 1921, interest payable semi-annually, is purchased on July 1, 1917, at a price to yield 6%. What entries should be made on the books of the purchaser:

(a) On the date of purchase;

(b) At each interest payment date, assuming no change in market interest rates;

(c) At date of maturity?

8.

(Form B)

The A Investment Company purchases a 6%, $10,000 bond, due 5 years from date, on Jan. 1, 1917. A premium is paid sufficient to yield an effective rate of 5%. On March 1, 1917, another $10,000 bond of the same series is purchased on the same basis, including accrued interest.

(a) What entries should be made on the investment company's books for the Jan. 1 and March 1 purchases?

(b) What entries should be made on July 1 at the time of the regular bond-interest payment?

9.

The market rate of interest for the class of security mentioned in the last problem falls to 4% and the A company decides to sell both bonds on Oct. 1, 1917, on this basis. Give the journal entries.

Interest in Fiduciary Accounting

10.

(Form B)

A trustee for an estate purchased a 10-year annuity of $25,000 payable in semiannual amounts. Assuming the purchase to be made on a 5% basis, interest convertible semiannually, prepare a table showing the distribution of the rent between return of the principal sum and interest. Give the journal entries necessary to record the purchase of the annuity and the receipt of the annuity rents for the first 3 years.

11.

A trustee for an estate purchases for investment $10,000 (par value), B Company, 6% bonds, due 25 years from date. The purchase was made on a 5% basis. At the end of 6 months he receives $300. How much does a life tenant, who is entitled to all the income, receive?

12.

The trustee mentioned in the preceding problem purchases $10,000 of the stock of the B Company. The Company has maintained a 6% dividend for several years and there is every reason to believe that this rate will be continued indefinitely. The pur-

chase is made on a 5% basis. At the end of 6 months he receives $300.

(a) How much will the life tenant, who is entitled to all the income, receive?

(b) Explain fully why the amount accruing to the life tenant in this case differs from that in the case of the bond purchase.

13.

(Form B)

The Eastern Trust Company receives an estate amounting to $105,411.33. There are two heirs, A and B. A is to receive the entire income from the estate during her life; B is to receive the principal ($105,411.33) at the time of A's death. The estate is invested in $100,000 of 5% bonds, payable in 15 years, with interest payable semiannually. This gives an effective yield of 4½%.

(a) Assuming that the trust company turns over the income of the estate to A once a year, and ignoring the Company's commission, give the journal entries covering the payment of the first year's income on the books of the trustee.

(b) Suppose that for 3 years the Company pays over as income to A the entire amount of the bond annuities, and, suppose further, that at the end of the 3 years the estate reverts to B. The trust company sells the above bonds and pays B the full amount of the estate. Assuming no change in interest rates what is the loss to the trustee? Give journal entries on the Company's books covering the sale of the bonds and the payment to B.

Sinking Funds

14.

(Form B)

A company issues $1,000,000 of 20-year, 6% bonds on an 8% basis. There is a sinking fund clause in the bond contract requiring that a sum be placed in the hands of a trustee each year,

which is sufficient to accumulate to the par of the bonds at maturity. The trustee appointed agrees to accept the sinking fund contribution on a 4% basis, convertible semiannually. Give all the entries on the books of the corporation covering:

(a) The original issue of the bonds;
(b) The first and second semiannual interest payments;
(c) The first two sinking fund installments;
(d) The payment of the bonds at maturity.

15.

Suppose that you had purchased $10,000 of the bonds mentioned in the preceding problem, what entries would you make on your books to record the original purchase and the first two bond-interest payments?

16.

The Emory Wheel company has some income bonds outstanding in addition to an issue of $1,000,000 of first-mortgage bonds. The Company is required to set aside a sinking fund to retire the bonds. The sinking fund installments have been charged against net revenue before interest was allowed on the income bonds. During the last four years of the life of the first-mortgage bonds, the charge for the sinking fund reduced the net revenue to such a point that nothing was left for the income bondholders. After using the sinking fund assets to pay the bonds the directors instruct the bookkeeper to carry the balance in the Sinking Fund Reserve account to the Surplus account. The income bondholders bring action to compel the payment of the unpaid interest for the four years. Give your argument for or against the stand of the income bondholders.

17.

If a corporation which is building up a sinking fund on the basis of annual deposits closes its books every 6 months, should accruals on the sinking fund be recognized?

XIX

ORGANIZATION AND CONSTRUCTION

Organization Costs

1.

What test should be applied to determine whether or not an outlay during the organization or construction period should be charged to a property account?

2.

"Value is a highly unstable aspect of structures, commodities services, rights, and situations. As far as demand is concerned its basis lies in usefulness, either to ultimate consumer or to producer. On the supply side value may be considered to consist in the bundle of costs which have been incurred in bringing an item to a particular condition. These costs are very largely the prices of services which have been performed in changing the primal raw material, since the tree in the forest or the ore in the ground is commonly a trifling element in the total cost of the completed commodity or structure."

Examine this statement carefully and point out its application to the problem of determinig property values during the organization and construction period.

3.

"All of the outlays necessary to the complete initiation of the going business may, for purposes of value analysis, be grouped into two divisions: (1) those expenditures definitely assignable to particular physical structures; (2) those costs which are assignable only to the business enterprise in its entirety."

Give examples of each kind of expenditure and argue that each class is equally necessary and results in equally *bona fide* balance sheet assets.

4.

(Form B)

Mr. D. S. Firedale has perfected a new device for manufacturing paper containers. To initiate the enterprise it is necessary to raise $100,000 to construct factory buildings, acquire and install equipment, buy necessary raw materials, etc. To accomplish this Mr. Firedale organizes a corporation with authorized capital stock of $200,000. He takes $50,000 in stock in exchange for his patent rights. The balance of the stock is sold for par through a brokerage firm. Broker's commissions total $20,000. The incorporation and legal fees (examining patents, etc.,) amount to $5,000. It is necessary to employ a considerable staff in building up an organization with respect to buying, selling, factory personnel, etc. A considerable outlay in labor and materials is likewise necessary in preliminary tests and experimentation. Before regular operations have started outlays for these purposes have totaled $25,000. The remaining $100,000 was expended in direct construction, equipment, and raw material costs.

Prepare a balance sheet consistent with these facts.

5.

(Form B)

A corporation is organized for the purpose of erecting an office building in a growing western town. An $100,000 issue of capital stock is authorized. A brokerage company underwrites the entire issue for $80,000. All the stock is sold at par. The promoters are allowed $10,000 in stock and $10,000 in cash for their services. An office building is erected which costs $60,000. The project gives every indication of becoming a great success, and the stock will probably earn 8% or better on par permanently.

Prepare a balance sheet and discuss.

6.

A newly-organized manufacturing concern contracts with a construction company for the erection of warehouse, factory and office building. The cost of these structures, completed, is as follows: warehouse, $12,500; factory, $32,000; office building, $6,500. Machinery and other equipment costs $27,400, freight not paid. Freight and delivery charges amount to $600. The cost of installing the equipment is $1,200. Raw materials and supplies are purchased, $17,000; freight and delivery charges on same amount to $380. Incorporation fees are $125. Other legal expenses amount to $250. Commissions paid to brokers for selling the capital stock are $3,000. Other clerical organization expenses amount to $400. Preliminary advertising costs $800. Expenditures necessary to establish sales agencies amount to $2,500.

Prepare an exhibit of the necessary property accounts.

7.

An established manufacturing corporation decides to expand the enterprise by adding a new department which shall be devoted to the manufacture of certain special products. This plan requires the expenditure of $250,000 for new buildings, machinery and equipment. To raise the capital necessary to make this extension it is decided to issue bonds amounting to $200,000. Commissions and other outlays incident to the successful floating of this issue amount to $11,000. Discuss the accounting treatment of this last item.

8.

(Form C)

The construction of a store building requires expenditures as follows:

Cost of lot (including commission, etc.)	$14,000
Clearing the site and excavating	700
Frame lumber and shingles	2,200
Hardware	2,500

Carpenters	5,600
Masons	2,900
Other labor	1,500
Brick	2,800
Cement and sand	1,000
Finishing lumber	2,500
Windows and doors	800
Plumbing	900
Decorator's contract	1,100
Miscellaneous	3,700

Four hundred loads of dirt from the cellar excavation were sold at 40 cents a load. Scrap lumber was sold, $75. A junk dealer paid $50 for remnants of plumbing materials and other scrap hardware. Brick was returned, $250. Scrap finishing lumber was sold, $65. The firm was allowed a rebate of $40 on certain doors that were not up to specifications.

Prepare an exhibit of construction accounts recording the above construction record, and close these accounts into a general balance sheet account, Store Building. Would it be reasonable to charge organization costs likewise to Store Building, provided this is the only fixed asset which the business acquires?

9.

(a) Among common organization costs are incorporation fees, lawyers' charges, promotion costs, underwriters' commissions, cost of prospectus and preliminary advertising, etc. Explain *fully* why such items require special accounting treatment, initially, as compared with such construction costs as salaries of draftsmen, wages of masons and carpenters, costs of raw materials, etc.

(b) "The later treatment of organization costs is a matter upon which there is much disagreement. Five main possibilities suggest themselves. Such costs may be (1) left untouched in the balance sheet indefinitely; (2) written off as soon as sufficient revenue is available for the purpose; (3) written off gradually during the entire life of the corporation in the case of the termin-

able company; (4) written off during the term of the particular security issue from which the funds were received; (5) written off in proportion to the net wasting of the total of the tangible assets."

Discuss, and select the basis which you think is most reasonable, giving reasons.

10.

The following represents, in summary form, the ledger of a mining company after 10 years of operation:

Mine	$300,000	Stockholders' Equity	$250,000
Equipment	50,000	Allow. for Depletion	150,000
Organization Costs	70,000	Allow. for Depreciation	25,000
Current Assets	25,000	Current Liabilities	20,000
	$445,000		$445,000

You find that the depreciation and depletion reserves cover only the estimated value decline on the items of mine and equipment, which are carried in the ledger at *direct* cost. Discuss.

Depreciation During Construction

11.

Give the argument in support of the contention that depreciation (value decline) of the property of an enterprise as a whole cannot take place during the construction period proper.

12.

(Form B)

In constructing the property of a certain enterprise the outlay for small tools, forms, scaffolding, etc., totals $8,500. When the plant is finally complete it is estimated that these items have a remaining value of but $2,000. Equipment purchased for hauling materials amounts to $4,800. These assets depreciate during the construction period, $1,200. One truck is sold for

$1,500; the remaining trucks and auxiliary equipment (estimated value $2,100) are retained for use in operation. One unit of the plant is damaged by a windstorm while still unfinished; the cost of repairing the damage is $7,200. There was no cyclone insurance.

The plant, when complete, consists in three main units; namely: warehouse, factory, and store and office building. An engineer estimates that the percentages of service life remaining in the various parts of the plant are as follows: warehouse, 95%, factory, 92%; store and office building, 90%. These percentages represent the greatest technical perfection possible under normal construction conditions. The costs of these units (exclusive of any items mentioned above) are as follows: warehouse. $15,000; factory, $60,000; store and office building, $25,000. The total outlay (including all items mentioned above) for plant and other assets from organization to the beginning of the operating period is $138,000. Organization costs amount to $3,500.

You are asked:

(a) to journalize all adjustments covering depreciation during construction (assuming in this case that depreciation is due solely to physical deterioration);

(b) to prepare the asset side of the balance sheet at the moment the completed property is turned over to the operating officials (assuming all securities to be sold at par).

13.

"The balance sheet should show the correct total of asset values and also the proper figures for each important class of property; and if this is to be accomplished in the case of an enterprise such as a railroad company, which requires a considerable period for organization and construction and makes use of many distinct kinds of assets, a property account to record 'depreciation' during construction is needed."

Show that this is the case, giving illustrative entries.

Interest, Dividend and Tax Accruals During Construction

14.

An electric railway corporation is organized with a capital stock of $5,000,000 and bonded debt of $2,500,000. We will assume that these securities are sold at par. It requires 1½ years to construct the line and terminals. During this period interest accrues on the outstanding bonds at the rate of 5% per annum. Discuss the accounting treatment of this interest charge.

15.

A competitive line (see the preceding problem) is financed entirely through stock issues. The capital in this case is represented by an issue of 6% preferred stock, $5,000,000; and $2,500,000 in common stock. We will assume in this case also that all the securities are sold at par. (This is as likely in the case of a corporation financed entirely through stock issues, as where both stock and bond issues are used.) The construction period is again 1½ years. What is the value of the completed property? Will the method of financiering employed in this case (or the preceding) affect the rates that may be charged the consumer?

16.

Give the argument against charging interest or dividends during the construction period to property. How must this argument be modified in the case of the public utility whose rates are not fixed by competition?

17.

According to the text tax accruals during organization and construction may properly be charged to property account. Can you justify an accounting practice which thus leads to a permanent capitalization of tax payments? Do real estate lots held for an advance, for example, increase in value *because* taxes are accruing thereon?

The Construction Period—Illegitimate Cost

18.

Show that the determination of a *normal* organization and construction period for any given type of enterprise is a very difficult matter. Can a company start operations with a deficit?

19.

In building an electric line a construction company is harrassed by an unusual number of delays and accidents. An exceptionally rainy season causes rapid deterioration, renders the transportation of materials difficult and hampers the construction crews. It is estimated that extraordinary losses from these causes total $25,000. In bridging a river a serious accident due to careless planning on the part of the engineers results in the loss of material valued at $6,000, and the injury of several workmen. Payments in settlements of damage claims amount to $7,500. A strike results in the cessation of construction work for several weeks and direct damage to property amounting to $4,500. Depreciation and other losses due to this delay total $2,500.

The operating company has agreed to purchase the completed line of the construction company at actual cost plus 6%. (This, we will assume, is not an unreasonable agreement under normal conditions.) This agreement is consummated; the property being taken over at the figure shown by the construction company's records, $475,000.

At what value should this property be entered on the operating company's balance sheet? Discuss fully.

20.

A power company is required to scrap machinery valued at $13,000 almost as soon as the plant is completed. The scrap value is $2,500. New machinery of an improved type which costs

$26,000 is purchased. The bookkeeper makes, in summary form, the following entries:

Cash (from scrap)	$2,500	
Old Machinery		$2,500,

and,

New Machinery	$26,000	
Cash		$26,000.

Discuss fully the propriety of such accounting.

21.

A promoter organizes a corporation for the ostensible purpose of manufacturing a new article. The stock is sold in small lots to a considerable number of investors but the promoter is able to retain control of the directorate. Through his influence contracts for construction work are awarded to a company in which he is particularly interested. This company charges $50,000 more than could reasonably be considered a fair price for construction work. In addition the promoter receives $25,000, cash, for "overseeing" the building operations. An expert could have been employed for the same work for $5,000.

You are called in as an accountant to prepare a balance sheet. How would you treat the expenditures mentioned?

Discounts on Securities

22.

(a) What is the general basis for the distinction between the construction period and the developmental or experimental period? Show by illustration that it is often a very difficult matter to draw a hard and fast line between the two cases.

(b) Why are such questions as the determination of the construction period of much greater importance in connection with public-utility enterprises than in competitive lines?

23.

A company organizes with an authorized capital of $100,000, par $100. The prospects for financial success are bright and the entire issue of stock is sold at $120 per share. Six months after organization, and before earnings have begun to accrue, one of the directors suggests that it would be desirable to pay out as dividends at least a part of the organization profit gained by selling the capital stock at a premium. Discuss this proposition fully.

24.

A corporation is organized with a capital of $500,000, par $100. The stock is sold at 90. It is urged by the promoters that the 10% discount is a cost of securing the capital and hence is a property charge. What is your opinion? Give the journal entries which should be made to cover this issue of stock.

Suppose the bookkeeper makes the following entry when the above mentioned stock is issued:

Cash	$450,000	
Capital Stock		$450,000.

Discuss this procedure fully, explaining its advantages and disadvantages. What is the significance of par value in stocks? How do bonds and similar securities differ in this regard?

25.

"The par of a bond represents the amount which must be paid at maturity. The par of the bond is the actual liability; the bondholder has a claim against the corporation equal at all times to the par of the bond. Hence bond discount is a cost of capital. On the other hand bond premium is clearly a profit on the sale of the security; it is only the par of the bond which must be repaid, not its price."

Discuss. Might the *accounting* liability be, in a measure, distinct from the *legal* liability?

XX

THE BASIS FOR REVALUATION

The General Significance of Value Changes

1.

"For the most part valuation during the organization and construction period consists in the determination of bona fide purchase prices. In other words, mere incidence of expenditure must be carefully observed. Does a particular outlay result in the acquisition of a genuine asset value, and what is the nature of the asset? is the question which must frequently be asked in such cases. In this process of preliminary valuation true market prices are a fairly reliable guide.

"After operations have begun the further problem of *revaluation* arises. In the process of preparing the periodic income sheet and balance sheet it is necessary to reclassify these initial outlays, to divide them between the two financial statements, or, in other words, to separate them into *revenue charges* and *asset balances*. And this is a much more difficult type of valuation. It is not out of the question to determine, with reasonable accuracy, the construction cost or purchase price of the machine, the building, the mine shaft, or even the railway line. To determine rationally the *subsequent* value of any such item, however, the value remaining after a significant period of operation has elapsed, taxes every resource of the accountant or engineer. Sufficiently difficult at best, the matter is seriously complicated by price movements."

(a) Show that, in a sense, revaluation and appraisal is often necessary during the organization of the particular enterprise as well as subsequent thereto, especially in the case of the corpora-

tion. Show, however, the contrast between the purposes of preliminary valuation and revaluation arising during operation.

(b) Explain the fact that although bona fide construction cost or purchase price is universally conceded to be the proper basis for initial asset values there is much difference of opinion as to the proper starting point in revaluation.

(c) Show that the above quotation does not adequately express the problem of valuation in the case of current assets.

2.

The balance sheet, of which the left-hand side consists in a list of asset titles with a money amount attached to each, is frequently said to "represent the financial condition of an enterprise at a particular moment of time." In view of this conception of the balance sheet should there be any close relation between current market prices and the values attached to specific items in the statement? Show that the balance sheet often expresses simply an adjusted investment position, instead of actual financial status. Show further that even under the most favorable circumstances a statement of assets and equities is a very inadequate picture of the underlying financial condition of a business concern.

3.

"Accounting deals with value facts, and value is essentially a concept of economics." Does this mean that a value for accounting purposes must always be identical with market value? Explain fully.

4.

Some accountants object to the explicit recognition of *accrued* value changes in the accounts, particularly in the case of appreciation, on the ground that the accountant should confine his work to the record of "actual" transactions. Value changes, according to this position, do not become actual—are not "realized" except through purchase or sale.

Admitting that the accountant should keep a systematic record of all actual business occurrences, show clearly that accounting must go far beyond this and that some accrued value changes *must* be recognized.

Valuation and Management

5.

What are the functions of the manager? Show how accounts and financial statements, especially those dealing with assets and expenses, can be used by the manager to facilitate the performance of these functions.

6.

"Any business manager who takes advantage of an increase in the price of raw materials and advances the price of his finished product correspondingly before he has consumed all of the stocks he had purchased at lower prices is a profiteer!"

(a) What is your opinion of this assertion? If the statement were valid what basis of valuation, from the manager's standpoint, must of necessity be accepted?

(b) Prepare a statement which is the converse of the above. Such a statement would begin something like this: "Any manager who takes advantage of a fall in prices of raw materials and lowers his selling price before . . . . etc."

7.

The purchasing agent of the X Mfg. Co., foreseeing an advance in the prices of raw materials, buys heavily at August prices. By Dec. 31 there has been an advance of approximately 50%. The inventory at this time is $100,000, taken at cost.

Can the management rely upon this inventory figure in embarking on production policies? Explain fully. (In this connection review Problem 42, Chapter X.)

8.

"An increase in the value of contiguous land adds nothing to the utility of the Company's manufacturing site. The wheels will run no faster; no more goods will be produced; costs will not thereby be lowered. Indeed, such appreciation is a detriment to the business rather than an advantage because it is sure to lead to increased property taxes. To recognize such a change as causing an addition to the company's assets is accordingly the height of folly."

(a) Present a similar argument to the effect that the increase in the cost of any item used in production is a disadvantage to the management. Show that it does not thereby follow, however, that such increasing costs should not be recognized in the accounts.

(b) Show carefully that, from the long-run standpoint, it is of the utmost importance for the management of even a manufacturing establishment to be fully cognizant of changes in land values.

The Measurement of Investment or Sacrifice

9.

"In the railroad and public utility fields, where prices are not determined exclusively by competitive forces, it is important that the integrity of *investment* be preserved."

Assuming that investment is such cases should be maintained, which basis of valuation is most reasonable, cost or cost of replacement? Should the number of dollars merely be maintained or should the purchasing power of the dollars originally invested be preserved? Explain fully.

10.

"In the case of the ordinary competitive enterprise it is not the function of the accounts to show, continuously, original investment. It is rather precisely their funtion to follow the *fluctu-*

ations in that investment as it takes shape in specific structures, commodities, rights, services, and conditions. Therefore it is *specific* price changes and not the change in the value of money in which the accountant is interested."

Argue in support of this statement.

Special Objections to the Recognition of Appreciation

11.

"Appreciation should not be recognized. A change in the industrial situation might wipe out the appreciation after it had been recorded; and thus a profit would be shown in one period and a loss in the next without any sale taking place."

Admitting the truth of this statement, argue that, ideally, it is the function of accounting to disclose just such situations.

12.

"If appreciation is recognized in connection with a fixed asset such as a machine it will be necessary to increase the depreciation charges during the service-life of the unit by an exactly equivalent amount; and the net effect upon the accounts throughout the entire period will accordingly be nil."

Discuss carefully.

13.

"If a particular tract is so completely removed from the market that an advance in the price of contiguous land can have no effect whatever upon the policies of the management over a long period of years, there has been no true appreciation and none should be recognized on the books."

Illustrate and discuss.

14.

"Appreciation can never, in any sense, be said to constitute *realized* income. If the Bureau of Internal Revenue, for example, were to treat appreciation as gain, business men would in

many cases be seriously embarrassed. The tax levy would be increased because of the fact of appreciation but no cash would thereby be received with which to pay the additional assessment."

(a) What theory as to the nature of net income is implicit in this statement. Show, by stating explicitly the accounting processes which give rise to the net revenue balance, that any such conception of business income is entirely erroneous from the standpoint of fully accepted accounting practices.

(b) Show concretely that, without the recognition of appreciation, a business enterprise may be very seriously embarrassed by a large income and excess profits levy; that it may even be necessary for a corporation to borrow money to pay taxes based on a profit determined by thoroughly conventional accounting.

(c) Formulate a definition for profit *realization* which you consider satisfactory.

15.

A and B each have $1,000 at the beginning of the year. Each buys 10 shares of Corbin Steel stock @ 100, including commissions, etc. In July B, who enjoys active trading, sells Corbin Steel @ 110, net, and buys Balding Engine at the same price. In September he sells Balding @ 115 and buys Western Oil @ 50. Late in December he decides to go back to Corbin Steel which is then selling at 138. He accordingly sells his Western Oil at a price of 60, and buys 10 shares of Corbin Steel with the proceeds. Meanwhile A, trusting in the future of Corbin Steel has "sat tight."

(a) How much profit has B "realized" during the year according to conventional bookkeeping? How much has A realized?

(b) Argue that actually each has made the same profit, which is as fully realized in one case as in the other.

(c) Write out an analogous case using a period of one month and assuming that A and B are lumber wholesalers.

16.

"The recognition in explicit entries of the appreciation of either current or fixed assets should always be avoided. Such appreciation in the nature of the case will be based upon estimate or guess, and accounting should deal with certainties, not estimates."

(a) Show that the statements prepared by the accountant must inevitably be based on estimate at significant points.

(b) Argue that appreciation can be more accurately guaged than can decline in value.

17.

Show that the income figure in a particular case may be swollen by many other practices than the recognition of appreciation. Argue that an attitude of consistent conservatism is not inconsistent with the practice of taking inventory of current assets at bona fide cost of replacement.

18.

"Appreciation means nothing to the investors. It is out of the question to base dividends on such value changes."

(a) Does the second sentence prove the first?

(b) Show that dividends might conceivably, in special cases, be based on appreciation.

(c) State definitely the various conditions which must be present if cash dividends are to be safely paid, and show that it may not always be wise to pay dividends even if profits have been secured through sales.

19.

"In deciding upon a basis for valuation various circumstances should influence the accountant's decision. Hard and fast rules must not be blindly applied to all cases. The nature of the enterprise, the purposes to be served by the accounts, the kind of

property involved in any case,—these and other factors must be taken into account if rational conclusions are to be reached."

With concrete illustrations demonstrate the reasonableness of this statement.

20.

"The typical trader or manufacturer is not a speculator; he is rather in the business of producing some commodity or service for sale on the market. The essence of his business is regular operation; the capstone of the process is the *sale*. It is accordingly thoroughly good practice to state profits in terms of sales, and not in terms of mere price changes."

(a) Show that virtually every business enterprise involves speculation in the broad sense.

(b) Argue, nevertheless, that even if assets were generally inventoried on a cost of replacement basis, appreciation income would commonly only be an incidental and supplementary income, net revenue arising for the most part as stated above, from sales.

XXI

THE VALUATION OF SPECIAL ASSETS

1.

What is the first step in all valuations, whatever basis for valuation be used?

Cash and Receivables

2.

(a) How does it happen that in the case of cash the trial balance figures usually give the correct conclusion for the balance sheet? Show that in some countries today (and even occasionally in the United States) the problem of converting different kinds of cash to a common denominator faces the accountant.

(b) Enumerate the various classes of items which may properly be included under the balance sheet caption, "cash."

(c) State the essential steps involved in taking the cash inventory.

3.

What is the essential difference between a company's "bank balance" and the outstanding accounts receivable?

4.

Under the provisions of Regulations 45—the rules issued by the Bureau of Internal Revenue to supplement the present federal income and profits tax law—only the amount of those customers' balances which have actually been proved to be worthless, currently, may be treated as an allowable deduction in the determination of net taxable income. What method of valuing

accounts receivable is implicit in this ruling? Do you consider this method a satisfactory scheme in the case of a company with a long list of customers? Explain fully.

5.

In finally determining the status of a particular customer's account, what consideration should be given to the following: (1) acceptance of proffered discounts; (2) fluctuation of balance; (3) credit ratings; (4) nature of business. Explain fully. Can you mention other factors of importance?

6.

(Forms B and C)

On Jan. 1, 1919, A's books show a credit balance in the Allowance for Doubtful Accounts of $400. Accounts Receivable shows a debit balance of $18,000. During 1919 the books are closed each quarter. A directs the bookkeeper to charge revenue each period with 5% of the outstanding accounts at the end of each period. All sales are on account, the figures for each quarter being as follows: (1) $20,000; (2) $29,000; (3) $16,000; (4) $42,000. Collections each quarter are as follows: (1) $25,000; (2) $32,000; (3) $12,000; (4) $31,000. Specific worthless accounts are written off during the various quarters as follows: (1) $500; (2) $1,300; (3) $200; (4) $400.

(a) Exhibit in summary form the journal entries made by the bookkeeper covering the above situation for the year, and show skeleton accounts for Sales, Allowance for Doubtful Accounts, and Accounts Receivable as these accounts would appear after all these entries were posted.

(b) Assuming that an examination of the business for several years shows that about 2% of all sales are not collected, show the entries which *should have been made* during the first quarter. Explain fully why this, and not the procedure under (a), is correct.

(c) Assuming that sales and collections during 1919 are fairly normal, what evidence do you find in the above situation as to the proper rate to use in determining the periodic allowance for uncollectibles? Explain fully.

7.

In what account would you place trade acceptances? On what basis would you value such paper for balance sheet purposes?

How do interest accruals enter into the valuation of current receivables?

Merchandise and Goods in Process

8.

In taking inventory of stock in hand the trader commonly uses invoice prices, thus neglecting transportation charges, unpacking, marking and shelving costs, insurance etc. State exactly how this practice affects the balance sheet and the statement of income. Do you see any justification for this procedure in the case of the typical retailer?

9.

A dealer buys 1,000 bolts of cloth at an invoice price of $4.00 each. Freight charges amount to $180. Drayage, marking, unpacking, and shelving costs total $95. During the following period 300 bolts are sold? What is the inventory at the end of the period on a cost basis? Show clearly how this situation would be handled in the accounts. (In this connection review Problem 26, Chapter VI.)

10.

"The problem of valuing goods in process is essentially the problem of cost allocation." Explain.

11.

The A Company begins business. During the first year materials purchased amount to \$37,000; sales total \$43,000; expenditures for labor, supplies and other items amount to \$18,000. At the end of the year materials still in the store room have a value of \$6,200. Charges for labor, supplies, etc., applicable to goods sold amount to \$14,000; there remain on hand of such items, unused supplies, services, etc. amounting to \$940. The material cost of goods sold amounts to \$24,000.

What is the inventory, in total, of goods in process and in stock on a cost basis? Show how this situation might be handled in the accounts.

12.

A certain firm has on hand Dec. 31, 1917, supplies which cost \$6,500. Cost of replacement is now \$7,000. In preparing statements and closing the accounts how do you recommend that this matter should be treated? What entries would be necessary to recognize the item of appreciation in the accounts? Suppose these entries have been made, and that on Jan. 15, 1918, the assets in question are sold for \$7,500, what entries would now be necessary? Explain any doubtful points.

13.

Show concretely that it would ordinarily be necessary to distinguish individual lots in such a way that particular articles on hand could be identified in terms of specific invoices in order to determine the literal cost of goods in stock.

14.

"In the case of goods in stock which have been purchased at various prices no cost method of determining inventory, whether weighted averages are used or not, would be consistent with the law of single price."

Show with an illustration that this statement is correct.

15.

"The most reasonable scheme for determining cost of goods on hand is based on the assumption that current stock consists in the most recent purchases, or, in other words, that goods sold or utilized are always taken from the oldest in stock. This plan has been adopted by the Bureau of Internal Revenue in dealing with transactions in securities where lots can not be conveniently distinguished, and, informally, in connection with merchandise inventories."

(a) Show that the assumption stated above would not always conform to the actual physical facts of the case. Argue, nevertheless, that it is reasonable from the economic standpoint.

(b) Show that this method of pricing would approximate the use of cost of replacement in many cases.

(c) Using an illustration show precisely how the inventory figure would be determined according to the above suggestion.

(d) What assumption with respect to the identity of lots on hand and the order of sale or other utilization is implicit in the weighted average method of taking inventory?

16.

"In order to determine the cost of replacement of a manufacturer's work in process or finished stock it would be necessary as a preliminary, to discover *actual* cost in any case."

(a) What do you understand "cost of replacement" to mean in the case of semifinished goods?

(b) Demonstrate the validity of the above statement.

17.

"In view of the fact that cost of replacement is the only cost influencing prices in the long run, cost of replacement of current assets becomes actual *effective* cost from the managerial standpoint." Discuss.

18.

"If the value of direct labor passes into the product, so does that of indirect labor, depreciation, administration, and even of the services performed by the owners themselves. The economic relationship is no less direct in one case than in the other. In other words, the value of the completed article ready to ship is virtually selling price to both buyer and seller, and the article should be inventoried accordingly." Discuss.

19.

The Bureau of Internal Revenue, under certain circumstances, permits farmers, for purposes of their income tax returns, to inventory unsold produce at market price less estimated marketing cost. Copper mining companies occasionally follow the same practice; and some accountants have urged that this is the proper general rule throughout the extractive industries.

(a) Giving an illustration, show that this method of valuation permits profits to be recognized prior to sale.

(b) What criterion of income is being substituted for the sale in such a case?

(c) Can you justify this scheme of pricing in the case of the farmer or miner?

20.

A shipbuilding company received orders early in 1918 for several vessels. At the end of the year the work, in terms of total estimated cost, was about half completed. The management decided to accrue 50% of the estimated total net profit on these contracts. What method of valuing unfinished hulls was followed? Explain fully. What criterion of income is being followed in this case?

21.

A certain merchant begins business Jan. 1. He decides to close his books and prepare statements at the end of each month. During the month he buys goods which cost $100,000. On Jan.

31 the stock on hand, at cost, amounts to $50,000. At current buying prices goods on hand would cost $40,000. The merchant inventories at "cost or market, whichever is lower." At the end of the next month, he still has half of these goods on hand. Cost amounts to $25,000. At new buying prices, however, these goods would now cost $22,500.

Discuss. Show, in view of this illustration, that an accountant cannot consistently argue that the sale is the sole proper criterion of income and at the same time advance "cost or market, whichever is lower" as the only reasonable method of pricing inventory.

22.

A certain drug manufacturer who turns out over 2,000 distinct commodities finds it impracticable to attempt to follow costs of work in process and finished stock. He accordingly takes inventory of goods on hand by subtracting from list selling price estimated shipping and marketing costs, factory costs yet to be undertaken, and estimated profit.

Discuss.

23.

Discuss the valuation of the securities (for purposes of closing the books and preparing statements) involved in each of the following situations: (a) U. S. Steel common stock owned by a speculator; (b) farm mortgages held by a life insurance company; (c) municipal bonds (bought at $90) representing the endowment funds of a university; (d) Penn. Railroad Co. bonds owned by a trust company.

24.

A certain investment company deals freely in many kinds of contractual securities, seldom holding a particular block for a long period. As purchased, all items are charged at cost (including brokerage) to a single "Securities" account. As particular blocks are sold this account is credited at sales price less commissions; and it is also credited with all annuities, interest, and dividends

received on securities held. Inventory of securities on hand is always taken at market price in so far as there is an established market. Discuss this procedure.

Machinery, Buildings and Land

25.

At the end of the accounting period what general considerations should be stressed in the classification of expenditure upon fixed assets between maintenance and improvement?

26.

Argue that minor changes in construction costs of fixed assets should not be made the basis for accounting entries affecting the valuations of items already in use.

27.

A certain company builds an addition to its plant and installs an equipment for a special laboratory. Expenditures for the new structure total $32,000. Equipment is purchased amounting to $27,000, delivered. This equipment is installed by workmen who are on the company's regular payroll. Wages of these workmen while so employed total $300. Parts and supplies from the company's storeroom are used in this work which have a cost of $125. If the equipment had been installed by the firm from which the purchase was made the installation cost would have been $800. In addition to this equipment purchased, the company constructs and installs with its own material and mechanics some special equipment. Materials are used in this work from the storeroom which cost $1,300; workmen's salaries applicable to this job total $3,400. If purchased outside this equipment would have cost $6,500.

What is the value of the new laboratory? Show how this situation should be handled in the accounts. Do you need more information than is given?

28.

Discuss the valuation of land (a) in the case of a railroad company, and (b) in the case of a real estate firm engaged in land speculation.

29.

Show that liquidating values are not, in general, a proper basis for booking fixed assets.

Miscellaneous

30.

State what you consider to be the proper rule of valuation for income and balance sheet purposes in connection with each of the following assets: (1) standard brass castings; (2) prepaid fire insurance; (3) liberty bonds; (4) accounts receivable; (5) a chattel mortgage on farm equipment; (6) a linotype machine in the hands of a printing company; (7) a timber tract; (8) a gold mine; (9) goodwill; (10) stock of ladies' hats; (11) Ford chassis in hands of manufacturer; (12) hull of unfinished warship; (13) Daylo flash lights, ready to ship from factory; (14) wheat in the grower's bins.

XXII

THE DEPRECIATION ACCOUNTS

The Depreciation Problem

1.

"Depreciation accounting consists primarily in the rational apportionment of the cost of fixed tangible assets over a series of expense accounts."

Why is the term "depreciation" usually attached only to the value expiration of fixed assets? Contrast sharply the valuation of fixed and current items.

2.

"Depreciation is simply one phase of the valuation problem as it arises in accounting."

Discuss. Argue that the depreciation problem is perhaps the most important as well as the most complex matter of valuation with which the accountant is called upon to deal.

Repairs and Renewals

3.

"Every property unit retired from service must be replaced by *some* property of the same *value* if the capital investment is to remain intact." Show that this is true.

Does the maintenance of *operating efficiency* insure the integrity of the *investment?* Does the maintenance of investment in dollars and cents insure the maintenance of operating scope and efficiency?

4.

Is the cost of a new tire for the car *maintenance?* A new wheel? A new top? A new engine? Is the cost of "tuning up" the engine, cleaning the cylinders, etc., a repair? Should the cost of lubrication be charged to upkeep? Of gasoline? Try to frame a general definition for the term *maintenance.*

5.

What are the principal factors operating to cause a fixed asset to depreciate? Why is it that the life of an asset cannot usually be prolonged indefinitely by repairs?

6.

Although it is customary to charge maintenance costs directly to expense as incurred show that repair costs as well as residual depreciation really become an expense or cost of sales *after* the actual outlay? Show that there is some force in the view that total depreciation consists in the sum of original cost plus total maintenance throughout the service life of the unit.

7.

Draw up a list of maintenance accounts which might reasonably be used by a firm operating an interurban truck business.

The Replacement Policy

8.

What is meant by the "replacement policy" of dealing with depreciation? Under what conditions is such a policy fairly reasonable? What unreasonable interpretation of this policy has sometimes been followed?

9.

"Depreciation should, of course, be apportioned. To charge the entire cost of an item to expense at the time of *abandonment,* however, is a less serious mistake than to seize upon *acquisition* as the occasion for this charge." Explain.

10.

In 1916 a corporation purchased 10 new machines at a cost of $25,000 to replace the same number of like machines the original cost of which was $15,000. The following entries were made to cover the depreciation involved according to the replacement policy:

Expense	$25,000	
Cash		$25,000.

Criticize.

Suppose that the new machines mentioned in the last problem had cost but $10,000. What entries should have been made?

11.

A water plant is built by a public-utility corporation at a cost of $700,000. It is estimated that the plant and mains will give satisfactory service for a period of 25 years, after which it will be necessary virtually to rebuild the property. The company proposes to adopt the replacement policy of treating depreciation. Would you approve of the company's plan? State carefully the exact conditions necessary if the replacement policy is to be an adequate method of caring for depreciation.

12.

The Interstate Commerce Commission's classification of operating expenses for steam roads requires a railroad company to charge to renewal expense the cost of replacing a property item such as rails or ties *in kind* minus any salvage value at the date of replacement. Explain the effect of this rule on both the property and the expense accounts.

Formal Depreciation Accounts

13.

"A rational net revenue figure cannot be determined until the depreciation of important property items of long life has been recognized by an appropriate charge to expense."

Support this statement and give illustrative entries.

14.

"The charge to depreciation expense is a formal recognition of the fact that a part of the investment in fixed assets has been converted into current assets, and insures the *retention* of these new values within the business."

Show precisely how the formal recognition of depreciation does register the conversion of property and prevent the dissipation of capital. Show that *any* expense charge tends to insure capital maintenance.

15.

Among other accounts in a corporation's ledger you find the following:

Building	$100,000
Machinery	250,000
Allowance for Depreciation of Building	10,000
Allowance for Depreciation of Machinery	52,000

(a) On which side of the ledger would each of the above balances be found?

(b) Interpret each of these accounts.

16.

On examining the books of a manufacturing company, you find that the balance of the Machinery account is $150,000 and of the Allowance for Depreciation of Machinery account, $55,000. A conservative appraisal of the machinery shows a value

of $105,000. Would you advise the correction of the books to conform to the appraisals? If so, give the entries necessary to make the correction.

17.

On the books of an electric light company you find these accounts:

Generating Plant $575,000
Reserve for Depreciation of Generating Plant ....$385,000.

The company has decided to abandon its old plant and build a new one. The old plant is scrapped and sold. The salvage yields $50,000 in all.

(a) Give the entries necessary to close the old plant account.

(b) If the salvage had been $190,000 what would the entries have been?

(c) Suppose the salvage were $215,000 what entries should be made?

18.

A company which has consistently charged excessive sums to depreciation each year, finds in 1916 that its net income is not large enough to pay the regular dividend. The board of directors, after finding that the Allowance for Depreciation was larger than necessary to measure the decrease in the value of the property, charged this account and credited Net Revenue with an amount sufficient to pay the dividend.

Discuss the propriety of this accounting procedure.

19.

(Forms B and C)

The ledger of the Wolverine Electric Co. on Dec. 31, 1917, shows an Equipment account with a debit balance of $100,000; the Allowance for Depreciation of Equipment account shows a credit balance on the same date of $10,000. The equipment was purchased on Jan. 1, 1916. All of the units are identical and the

same rate of depreciation is applicable to each. There have been no abandonments up to this time. The Company closes its books every 6 months. On Sept. 30, 1918, one machine, which has been badly damaged in an accident, is dismantled. The original cost of this unit was $1,500. The salvage is sold to a junk dealer for $100.

Continuing the depreciation policy already established in this case give the journal entries covering the history of this equipment from Jan. 1, 1917, to Dec. 31, 1918, inclusive, and show the two accounts named above as they would appear when closed, Dec. 31, 1918.

20.

(Forms B and C)

The Bland & Graves Co. buys for cash 10 like units of equipment on July 1, 1916, at $2,000 each. The management decides to use a depreciation rate of 10% per annum. The books are closed on the last day of each year. On June 30, 1917, the Company sells one unit for $1,900; another unit is sold for $1,800, Dec. 31, 1917; a third, for $2,200 on July 1, 1918. The remaining 7 units are scrapped Dec. 31, 1920. Costs of demolition, consisting of labor which is included in the general payroll, total $100. The salvage is sold for cash, $2,000, with the exception of parts with an estimated value of $500 which are placed in the Company's storeroom.

Give dated journal entries covering the above, explaining your procedure in the case of any doubtful points.

The Depreciation Fund

21.

"Such accounting procedures as the booking of accrued depreciation, the accumulation of discount, and the building up of a sinking fund reserve, consist in mere bookkeeping entries which do not affect the assets of the business in any way. Such actions are only pen scratches and of no practical importance unless ac-

companied by the setting up of actual funds of marketable securities or other liquid assets."

Discuss this statement critically. When is it advisable to set up a special depreciation fund?

22.

The Interstate Commerce Commission requires all steam railroads engaged in interstate commerce to maintain a reserve for depreciation of equipment. On examining the books of the X. R. R. Co. you find among the accounts on the balance sheet, the following:

Depreciation Fund	$125,000
Reserve for Depreciation of Equipment	125,000
Notes Payable (6%)	100,000

You find that the depreciation fund consists in certificates of deposit in a savings bank which bear only 4%, and that the Company has established this fund intending thereby to comply with the I. C. C. regulations. The Company's practice is the result of a common confusion in the use of the terms "Depreciation Fund" and "Reserve for Depreciation." Write a letter to this Company's auditor explaining the error and also making any suggestion you may have with regard to the use of the fund.

23.

(Forms B and C)

The following accounts appear on the balance sheet of the X Manufacturing Company on June 30, 1918:

Depreciation Fund	$15,000
Allowance for Depreciation	15,000
Cash	500

On this date a machine which cost $5,000 is scrapped and is replaced by another machine which costs $7,500. The salvage from the old machine brings in $150 cash.

(a) Give the entries recognizing the abandonment of the old machine.

(b) What funds are available for the purchase of the new machine?

(c) Give entries covering the purchase of the new machine.

(d) Show the condition of all accounts affected by the entries made in (a) and (c).

24.

Show that the title "depreciation fund" is really a misnomer and suggest a more appropriate caption.

Depreciation Fund Returned to Investors

25.

State the conditions which would warrant the policy of returning the depreciation fund to the investors and illustrate the possible methods of attaining that result.

26.

The Petrol Oil Company has just completed its first year's operation. An estimate of the cost (before removal) of the crude oil taken from the wells during the year is $10,000. The concern has $500,000 in capital stock outstanding. The cash account shows a large balance, far in excess of any immediate needs. Write out a statement to the board of directors explaining three different ways in which an amount of this cash equal to the depletion charge may be used. Which, in your opinion, is the most desirable procedure from the standpoint of the stockholders?

27.

A man who owns $100,000 of stock in the Wolverine Iron Mines Co. dies, leaving the principal of his estate to his son but all of the income to his widow throughout her life. It is the practice of the mining company to ignore depreciation entirely. What effect will this practice have upon the relative rights of the

two parties interested in this estate if the dividend checks are considered as net income? Explain the proper method of handling this situation on the books of the mining company and the stockholder.

The Policy of Reinvesting the Fund in the Business

28.

"If the funds reserved by depreciation charges are invested in extensions the management will ultimately find itself in the unfortunate position of being obliged to borrow in order to replace the original structures when it becomes necessary to abandon them."

Is it necessarily "unfortunate" to be obliged to raise new capital under such circumstances? Discuss fully.

Miscellaneous

29.

"A balance sheet may show either a Depreciation Fund account or an Allowance for Depreciation account; or both may be present, showing equal or unequal amounts as the case may be; or either may appear in any amount whatever,—and yet in all these cases depreciation may have been adequately accounted for."

Explain carefully.

30.

The following is a published balance sheet of the A. B. Co. at the end of its fifth year of operation:

Assets		Liabilities	
Real Estate	$100,000	Capital Stock (common)	$250,000
Buildings	150,000	Capital Stock (preferred)	250,000
Machinery	170,000		
Notes Receivable	60,000		

Accounts Receivable..	19,000	Bonds	100,000
Supplies	5,000	Accounts Payable	20,000
Merchandise	90,000	Surplus	20,000
Cash	46,000		
	$640,000		$640,000

No account of depreciation has been taken. Dividends have been declared regularly on the 6%, non-cumulative, preferred stock, but nothing has been paid on the common. The accrued depreciation on buildings and machinery amounts to $75,000.

(a) Restate the balance sheet, making the proper corrections.

(b) Suppose that you were a common stockholder in this company, would you have reason to object to the payment of the preferred dividends? Explain fully.

(c) Suppose that the Company's real estate had doubled in value during the past 5 years, would you alter your position in regard to the actions of the board of directors? Restate the balance sheet in accordance with this assumption, carrying the real estate at its proper figure. Should appreciation in real estate be used to offset depreciation of other assets?

31.

A certain public-utility company, in petitioning for an increase in rates, placed among its operating expenses the following items:

(a) Ordinary operating expenses (e. g., labor and materials).

(b) Depreciation of fixed assets.

(c) Sinking Fund installments on its bonded indebtedness.

The statistician for the public-utility commission objected to the company's stand, claiming that depreciation and sinking fund were synonymous terms, and that if both were allowed the public

would be compelled to maintain the property and to purchase it besides.

To what extent was the statistician correct? Just why should the terms "sinking fund" and "depreciation" be so confused?

32.

A corporation which has income bonds among other securities outstanding, has been unable to pay interest on these bonds for five years. An appraisal of the property shows that the actual value is much greater than the book figures due to the fact that the annual allowance for depreciation has been excessive. The board of directors decide to correct the book figures by crediting the difference to Surplus. They then propose to pay a dividend out of the accumulated Surplus. The income bond holders bring suit seeking to compel the payment of the back interest before dividends can be declared.

Have they any reasonable ground for action?

33.

A corporation's balance sheet shows the following items on the credit side:

Reserve for Depreciation	$170,000
Reserve for Additions and Betterments	215,000
Contingency Reserve	175,000
Reserve for Uncollectible Accounts..	15,000
Reserve for Federal Taxes..........	60,000.

Interpret each of these items.

34.

The management requests that you certify to the statement: Surplus and Reserves $635,000, in place of the itemized accounts shown in the last problem. Would you agree to this procedure? Give reasons.

XXIII

METHODS OF MEASURING DEPRECIATION

The Basis for Measurement

1.

Contrast physical condition or *efficiency* and *depreciated value.*

2.

"No piece of machinery can depreciate below say thirty per cent of its cost new. There is a point below which it is practically impossible to operate a machine and this is seldom less than seventy per cent. Hence any attempt to place a valuation on a property of less than seventy per cent of cost is absurd." Write a statement showing the confusion of terms involved in the quotation. Show by the use of graphs that it is entirely logical to place a value below seventy per cent at the same time that the operating efficiency is above that figure.

3.

"Productive efficiency figures as obtained by engineers are an important element in the determination of accrued depreciation, although they cannot be directly applied to costs in determining current book values."

How *may* operating and efficiency data be used in this connection?

4.

It is sometimes urged that depreciation should be charged roughly as a function of gross revenue in order to maintain a fairly even flow of net revenue. Discuss. Is it the purpose of accounting to equalize the showing of net revenue between periods?

5.

"A machine may be looked upon as a bundle of services, from the standpoint of accounting. A company buys a machine to obtain the services it will produce. Hence the investment is simply the cost of all the services to be obtained. This being the case depreciation should be apportioned between accounting periods in direct proportion to the number of services rendered by the machine."

This view is often used as an argument in favor of charging depreciation as a function of revenue. Discuss.

Straight Line Method

6.

What assumption underlies the straight line method? Do you think this assumption reasonable?

7.

A manufacturing concern purchases a machine at a cost of $10,000. It is estimated that the machine will last ten years and that the salvage value will amount to $100. Prepare a table showing the annual depreciation charges on the straight line method.

8.

Suppose that a depreciation fund is maintained (Problem 7), that the annual installment is the amount of the depreciation charge, and that the interest earned on this fund amounts to 6% convertible annually. Prepare a table showing the amount to which the fund will accumulate.

9.

"Interest computations should be taken into consideration whether a special fund is maintained or not."

Explain why this is true.

10.

Would you modify the statement made in Problem 9 if the service life of the property item under consideration was a very uncertain element? What is the point to be made in this connection?

The Sinking Fund Method

11.

How is the total depreciation apportioned to accounting periods according to the sinking fund method?

12.

Prepare a table showing the depreciation charges by years according to the sinking fund method for the machine mentioned in Problem 7. Assume that the sinking fund will earn 6% convertible annually. Give all entries for the first three years.

13.

"The sinking fund method is a less expensive method of accounting for depreciation than the straight line method." Show what the author of this quotation had in mind and criticize his conclusion.

14.

Under what conditions in practice is the sinking fund method advisable?

The Compound Interest Method

15.

Prepare a table similar to the one in Problem 7, this time using the compound interest method with a 6% rate of interest.

Give entries for first two years.

16.

What is the essential difference between the sinking fund and the compound interest methods?

17.

Show why the original name "equal annual payment" method was a proper designation as applied to the compound interest method.

18.

Show that interest is *not* being charged as an expense when the compound interest method is used.

Present Value of Future Revenue Method

19.

Why is the present value of future revenue method applicable only to *intangible* assets?

20.

You are asked to appraise a patent right by a firm which is contemplating its purchase. Upon investigation you find that it gives an advantage over all competitors sufficient to bring in $1,000 per year for 10 years. If the rate of interest on the investment which is considered reasonable is 6% what value would you place on the patent?

21.

Prepare a table (Problem 20) showing the value for each year, the depreciation charge, and the rate of net revenue to book value for each year, using the present value of future revenue method with a 6% rate of interest.

22.

An intangible property item which will produce the following revenues before allowances for depreciation are made is placed upon the market:

Year	Revenue
1	$100
2	110
3	90
4	150
5	20
6	50
7	120
8	140
9	150
10	100

(a) What would you bid for this property if your money was worth 6%?

(b) Prepare a table showing the depreciation, and the rate of net revenue to book value for each year, using the present value of future revenue method.

23.

A bond is purchased for investment at $1,120 (par value $1,000). The $120 represents a property investment which will completely expire in the life of the bond. What method of writing off depreciation would you use?

24.

"The present-value-of-future-revenue method is based on the same principle as the amortization of premium on bonds." Would you agree with this quotation? Explain your answer fully.

25.

The X. Y. Realty Co. purchases a leasehold on an office building site. The lease extends for 15 years and will bring in an annual rental of $2,000. The purchase is made on a 5% basis. Prepare a table showing the amount of depreciation on the leasehold for each year.

Miscellaneous Methods

26.

Give the argument in support of the theory that maintenance and residual depreciation should be amalgamated and spread over the life of a property through the "depreciation" charges.

27.

Write out the argument which might be used by a public-utility in support of the practice of charging depreciation as a function of net revenue.

28.

"The railroads do account for a large part of their depreciation as a function of net revenue at present. This is made possible by the fact that the Interstate Commerce Commission allows all repair costs to be charged to expense in the year made." Explain how this may result in charging depreciation as a function of revenue.

29.

Compare the annuity and sinking fund methods. Show that, in a sense, all "interest" methods of spreading depreciation are essentially the same.

30.

Formulate a general statement setting forth the conditions under which each, respectively, of the several methods mentioned in this chapter would be advisable in practice.

XXIV

THE INTANGIBLE ASSETS

The Nature of Goodwill

1.

What are the conditions under which intangibles of the general nature of goodwill arise? Name the more important factors which would give rise to goodwill in the case of a railroad enterprise, a retail establishment, and a manufacturing enterprise, respectively.

2.

Under what conditions is goodwill transferable? Not transferable? Does the matter of transferability affect the value of goodwill for accounting purposes?

3.

How may the "normal" rate of return in an industry be ascertained? What has this to do with goodwill?

The Valuation of Goodwill

4.

State carefully the circumstances under which it is proper to make use of goodwill *in the accounts*. Describe the conditions which, *in practice*, commonly lead to the recognition of goodwill.

5.

You are asked to certify to the following balance sheet heading:

Real Estate, Buildings, Goodwill, etc., $2,500,000. Have you any objection?

6.

Discuss the importance of recording goodwill: (a) when a firm pays cash or an equivalent for this asset; and (b) when the asset originates without cost.

7.

"If goodwill and similar assets are generally recognized in the accounts it simply means that the *rate* of net revenue to the value of the assets is made the same for all enterprises in each particular line. Neither total net revenue nor any other important figure is affected by this procedure."

Discuss.

8.

"Goodwill is just as valid as is real estate or merchandise. Hence, if it is proper to recognize the bona fide appreciation of real estate or merchandise in the accounts it is also proper to recognize the appreciation of goodwill."

Do you agree? Explain fully.

9.

You are considering the purchase of a retail store in a certain town. The business has been operating for two years, and during that time a net return on the investment ($10,000) of approximately 50% has been realized annually. Is there any goodwill? State carefully just what facts you will attempt to ascertain and what considerations you will weigh in attempting to answer the above question and in preparing a bid for the enterprise.

Going Value

10.

Explain fully what is meant by *going value*. Argue that going value is not a proper matter for accounting record in the case of the competitive enterprise. Show that in the case of a "guaranteed" industry going value may be a significant intangible asset.

11.

(a) Discuss developmental value as a matter of accounting record.

(b) A power company, with a proprietary investment of $6,500,000, makes a very poor showing of net revenue for 5 years. This result is due in part to inefficient operating management, unwise experimentation and advertising, and the necessity for scrapping machinery due to rapid technical improvement.

A summary of operation for five years is as follows:

	Gross Revenue	Expense	Interest
1905	$1,200,000	$1,050,000	$250,000
1906	1,305,000	1,325,000	250,000
1907	1,000,000	1,120,000	200,000
1908	1,680,000	1,250,000	200,000
1909	2,100,000	1,750,000	200,000

Assuming the legitimacy of developmental value, compute the amount of this item at 6%. At 8%. (Compound annually in each case.)

(c) In December, 1906, we will assume that the capitalization of the company discussed in (b) was changed. A large group of bondholders were induced to accept preferred stock in the company in exchange for their bonds rather than force a receivership. This reduced the fixed charges by $50,000. Does this reorganization affect the computation of developmental value?

12.

In case going value is assumed to be a legitimate asset item for a public utility company's balance sheet would it be proper to adopt the cost of replacement basis for the valuation of tangible property? Just what is the relationship between the recognition of going value and the basis for the valuation of tangible assets? Is the recognition of "interest" during construction, capitalized early losses, and capitalized deficiences in return, as assets, the rational way to "guarantee" an industry? Explain fully.

Miscellaneous Intangibles

13.

A mining enterprise has a mining property which will last 20 years and yield an annual income during that period of $200,000. At 8% what is the value of the mine?

Suppose the above company has the opportunity to purchase water rights which will lower the costs of smelting 20%, and make possible a return of $300,000 per year; and that these rights are secured at the nominal price of $15,000 (there being no competing buyers). At what figure should this asset be carried on the books? Explain fully.

14.

Suppose that the mining property (preceding problem) were practically worthless without the water rights, but that with the rights and mine in conjunction it would be possible to realize a net revenue of $300,000 per year for 20 years. What is the maximum amount the corporation could then afford to pay for these rights? Suppose these concessions are purchased as in the preceding case for $15,000. At what value should they appear upon the books? What value will you place upon the actual mining property?

Draw a general conclusion as to the relation between tangible and intangible assets.

15.

The common stock of the Wagner Machine Co. has earned 15% annually for 20 years. There is every prospect that this rate of return will be maintained permanently, or at least for many years. The par of the stock is $10. If you require 8% on your money what will you give for a block of 100 shares?

16.

If it were possible to impute a certain amount of periodic net income to a right granted by governmental authority, such as a patent, trade mark, or copyright, would it be reasonable to maintain a value in the books based upon a nominal cost figure? Would sale or market value be a proper basis in such a case? How do such intangibles differ from ordinary goodwill?

17.

Some corporations list patents and trademarks in their balance sheets at the nominal figure of one dollar. What is the reason for this practice? Is it justified? How would you expect excess-profits taxation to influence the valuation of these intangibles?

18.

"Contractual rights, such as leaseholds, annuities, etc., for which a definite consideration is given and from which the income is definitely known in advance, furnish less difficult problems of analysis than the more general intangibles such as goodwill."

Show that this is true. Illustrate.

19.

A chemical manufacturing company installs an experimental laboratory. The cost of equipping the laboratory and of constructing the necessary special apparatus is given to you as follows.

Fixtures	$ 2,000
Materials	6,500
Salaries	12,000
Power, Heat and Light	2,500
Rent	700
	$23,700

You find that the last two items are supplied by the company itself; that is, power, heat and light are furnished from the company's main power plant; and that the rent charged expresses the amount which could be realized if this space were rented to outside parties.

(a) The firm's accountant recommends charging the cost of this laboratory to capital. Give your opinion. Do you need further information?

(b) Assuming that the accountant is right, and that the maintenance and depreciation charges applicable to this part of the building total $300, what is the value of the laboratory? Explain fully.

XXV

THE INCOME SHEET

Purposes of Income Sheets

1.

For what purposes are income sheets prepared? Describe briefly the kinds of information desired by the different interested parties.

2.

"The art of expression is nearly, if not fully, as essential a part of the accountant's equipment as is his knowledge of accounting principles." Support this statement.

Summary Income Sheets

3.

What is the distinction between the operating and net revenue divisions of an income sheet? Can you name a business whose income sheet would consist of accounts appearing exclusively in either division?

4.

What important information would be shown in the operating division of the income sheet for a water plant; a bank; a farm; a street railway? For what purpose is the information appearing in this division intended?

5.

Make an outline of the accounts you would place in the operating division of an income sheet for a retail store; a canning factory; a wholesale grocer.

6.

Outline the accounts which you would place in the net revenue division of an income sheet for a bank; an automobile manufacturer; a shoe store.

7.

In which division would you place the item "taxes"? Explain carefully the nature of this item.

8.

What is the function of the surplus sheet? How extensive would you expect it to be for a retail merchant; a farmer; a railroad? Make a list of the surplus appropriations which might be made by each of these enterprises.

9.

What is meant by an "operating ratio?" Explain how it may be found from the income sheet of a manufacturing company, a railroad, a retail establishment.

10.

The following is the Profit and Loss account (in condensed form) of the Henderson Company for the year 1917:

Profit and Loss

Wages and Salaries...$	9,800	Balance ....$	12,500
Supplies	13,300	Sales	95,000
Sinking Fund Install..	10,000	Rebates and Allowances	6,000
Depreciation of Plant.	8,900	Interest	300
Materials Cost	28,000	Dividends	400
Interest on Bonds	4,100		
Dividends Declared...	2,000		
Loss on Aban. Property	1,700		
General Expense	11,600		
Balance	24,800		
	$114,200		$114,200
		Balance ....$	24,800

Arrange this statement in more intelligible form. What figure would you report to the government, as an auditor, as the net proprietary income? What figure would you report to the manager who is interested in comparing the concern with similar enterprises? Explain.

11.

Is the following an income sheet?

Income Sheet, E. W. Bliss Co., for the year ended Dec. 31, 1915, Moody's Manual, 1916, page 2215.

Net Earnings	$5,532,101
Preferred Dividends (8%)	100,000
	$5,432,101
Common Dividends (20%)	250,000
Balance after Dividends	$5,182,101
Previous Surplus	2,243,047
Surplus Jan. 1, 1916	$7,425,148

THE COMPARATIVE INCOME SHEET

12.

Except in the public utility field it is at present very difficult to compare the income statements of different companies engaged in the same line of business. Why is this true and what would remedy the situation?

13.

To what extent may a comparative income sheet be used in testing managerial efficiency in successive accounting periods? Explain carefully.

14.

The following is a comparative income sheet for the American Agricultural Chemical Co. as published in Moody's Manual of Railroads and Corporation Securities, 1920, Industrial Section, page 28:

Income Account, Years Ended June 30

	1919	1918	1917
Profits from properties owned and controlled[1] . .	$8,035,854	$11,079,957	$8,459,896
Other income	170,274	297,151	249,320
Total income	$8,206,128	$11,377,108	$8,709,216
Less reserve for freight losses, etc.	968,463	976,594	1,092,036
Interest on mortgage bonds.	404,001	431,466	459,680
Interest on debenture bonds	380,784	444,939	425,000
Factory and mining repairs and depreciation	2,294,210	1,413,090	1,186,144
Total	$4,047,458	$3,266,089	$3,162,860
Balance	4,158,670	8,111,019	5,546,356
Preferred dividends (6%) . .	1,659,896	1,658,487	1,655,067
Common dividends.	1,813,125 ($5\frac{3}{4}$%)	1,059,777 ($4\frac{3}{4}$%)	875,468
Bonus to employees	. . . .	. . . .	210,263
Surplus	$ 685,649	$5,392,755	$2,805,558

Criticize the arrangement of this statement and state in narative form the information you are able to obtain from it as published.

[1] After deducting operating charges and Federal taxes for the calendar years 1917 and 1918.

15.

On page 44 of Moody for 1920 (Industrial Section) may be found the following comparative income sheet of the American Cyanamid Co.:

Income Account, Years Ended June 30.

	1918-19	1917-18
Sales	$ 6,273,226	$ 6,234,237
Less allowance and freight	67,840	39,569
Net sales	$ 6,205,386	$ 6,194,668
Cost of sales	4,158,704	3,548,284
Selling and general expenses	473,640	301,148
Interest, taxes, etc.	176,650	72,248
Net profit on sales	$ 1,396,392	$ 2,272,988
Miscellaneous profits	225,088	162,372
Total income	$ 1,621,480	$ 2,435,360
Preferred Dividends	[1]716,508	[1]203,007
Reserve for income, etc. taxes	175,000	570,000
Deficit, Amalgamated Phosphate Co.	163,753	29,975
Licenses, etc. written off	233,975	233,975
Surplus for year	$ 332,244	$ 1,398,403

Comment on the arrangement of this statement and state in your own way the information contained therein.

[1] In 1917-18 this figure represents deferred dividends to December 31, 1916, paid May 1, 1918; in 1918-19, deferred dividends to December 31, 1917, $476,682, paid April 10, 1919, and deferred dividends to June 30, 1918, $239,826, paid July 10, 1919.

16.

How would you present the information contained in the following comparative income sheet of the American Hide and Leather Co. (Taken from Moody's Manual for 1920, page 53.)

Income Account of Company and Its Subsidiaries,
Years Ended June 30.

	1919	1918	1917
Gross output	$28,593,698	$29,104,428	$24,076,824
Expenses:			
Hides and skins used, etc. Manufacturing supplies and expenses	21,828,487	23,218,643	19,490,799
Discounts	1,234,539	1,300,462	932,509
General and selling expenses and taxes	1,847,530	1,075,904	973,127
Total	$24,910,556	$25,595,009	$21,396,435
Trading profits	3,683,142	3,509,419	2,680,389
Miscellaneous income	47,294	2,806	16,717
Total income	$ 3,730,436	$ 3,512,225	$ 2,697,106
Deduct:			
Replacements, renewals, and repairs	$ 313,865	$ 304,968	$ 234,786
Bad debts and reserve	28,172	45,000	4,512
Interest on loans, less interest earned (cr)	30,241	113,814	29,057
[1]Interest on first mortgage bonds	511,500	511,500	511,500
Cost of 150 bonds for sinking fund	151,656	151,330	154,500
Total deductions	$ 1,035,434	$ 1,126,612	$ 934,355
Surplus for year	2,695,002	2,385,613	1,762,751

[1] Includes interest on bonds in sinking fund.

17.

Reconstruct the following comparative income sheet of the American Ice Co. (Moody, 1920, page 57.) Indicate those classifications which you deem entirely improper.

Consolidated Income Account, Years Ended Oct. 31.

	1919	1918	1917
Sales of ice, etc	$15,345,729	$12,622,867	$ 9,840,529
Income from investments, etc.	207,586	120,762	174,403
Total	$15,553,315	$12,743,629	$10,014,932
Less cost of merchandise.			
Less operating expenses..	10,440,079	9,080,806	7,404,764
Balance	$ 5,113,236	$ 3,662,823	$ 2,610,168
Bond interest, etc.	416,297	434,239	410,958
Rents	364,160	126,289	146,367
Taxes	....	201,146	242,495
Insurance	99,281	88,947	86,903
Maintenance and improvements	1,087,761	687,224	623,854
Dissolution exp. — Am. Ice Sec. Co.	....	....	31,512
Adjustment of property values	....	....	84,768
Depreciation of general property	761,677	750,780	......
Reserve for Federal taxes..	359,828	164,904	......
Total	$ 3,089,004	$ 2,453,529	$ 1,626,857
Net gain	2,024,232	1,209,294	983,311
Preferred dividends (%) ..	(6) 896,331	(6) 893,934	[1]563,267
Surplus for year	$ 1,127,901	$ 315,360	$ 420,044

[1] Includes $4,623 paid on old 6% cumulative preferred stock and $558,644 (3¾%) on present preferred stock.

18.

Study the following comparative income sheet, state in narrative form the essential facts disclosed, and make any comments on the arrangement that occur to you:

X & Bro., Inc.

Profit and Loss Statement for the Years Ending Dec. 31.

	1916	1917	1918
Sales:			
Gross	$ 6,526,135	$ 6,537,498	$ 6,711,999
Less:			
Returns, Allowances Discounts and Rebates	91,541	121,481	146,815
Net Sales	$ 6,434,594	$ 6,416,017	$ 6,565,184
Cost of Sales:			
Materials	2,330,509	2,484,408	2,635,990
Deduct: Waste Sold	124,228	212,826	277,002
	$ 2,206,281	$ 2,271,582	$ 2,358,988
Labor	1,944,129	1,928,521	1,806,578
Boxes	198,196	211,835	190,151
Revenue Stamps	583,439	603,332	603,414
Manufacturing Expenses	108,332	95,875	151,557
General Expenses	105,720	122,111	114,262
Depreciation of Bldgs.	7,690	7,694	8,136
Depreciation of Mach., Fixt., and Improv.	21,386	18,998	19,268
	$ 5,175,173	$ 5,259,948	$ 5,252,354
Deduct: Increase or Add (*) Decrease of Inventory over Inventory at Beginning of Period	*91,672	262,001	*82,153
Total Cost of Sales	$ 5,266,845	$ 4,997,947	$ 5,334,507
Gross Operating Profit	$ 1,167,749	$ 1,418,070	$ 1,230,677
Selling Expense	$ 225,643	$ 253,905	$ 308,402

Administrative and General Expenses:			
Executive Salaries	69,183	84,662	94,250
Office Salaries	70,142	78,225	87,032
Rent	17,000	18,652	18,999
Taxes	7,254	34,016	12,173
Light, Heat, Telephone, Telegrams, etc.	66,542	53,023	57,886
Bad Debts	2,543	3,046	2,860
Donations	948	1,243	.....
Depreciation — Office and Store Fixtures	4,256	3,156	3,320
Organization Expenses Written Off	2,287	4,236	3,828
Total Expenses	$ 465,798	$ 534,164	$ 588,750
Net Operating Profit	$ 701,951	$ 883,906	$ 641,927
Miscellaneous Income and Credits	56,953	44,653	96,007
	$ 758,904	$ 928,559	$ 737,934
Deduct:			
Interest on Notes Payable.		8,873	51,045
Loss on Sale of Liberty Bonds			317
		$ 8,873	$ 51,362
Net Profit before Ded. of Fed. Taxes	$ 758,904	$ 919,686	$ 686,572
Deduct: Estimated Federal Taxes		105,641	132,500
Net Profit	$ 758,904	$ 814,045	$ 554,072

19.

The following comparative statement taken from the books of a manufacturer and trader, illustrates a type of summary income sheet prepared by many companies. Study this statement and comment on any strong or weak features which you consider noticeable.

Comparative Profit and Loss Statements for Years Ending Dec. 31.

	1916	1917	1918
Sales	$ 1,082,936	$ 1,238,052	$ 1,469,283
Cost of Goods Sold	714,390	802,749	944,146
Gross Profits on Sales	$ 368,546	$ 435,303	$ 525,137
Profit on Sale of Wood, Excelsior and Waste Paper	1,859	32	543
Income from Investments	....	1	623
Other Income	579	1,239	2,228
Total Gross Income	$ 370,984	$ 436,575	$ 528,531
Expenses Chargeable Direct to Depts.	$ 113,003	$ 137,980	$ 158,150
Delivery, Packing, Stable and Garage	38,193	45,266	54,612
General Expense, Advertising, Power, Light, Heat, Insurance, Postage	103,463	121,285	125,677
Interest on Mortgage on Real Estate	5,301	5,049	4,500
Bldgs.: Maintenance and Repairs	5,377	4,820	6,921
Depreciation on Bldgs.	....	....	6,610
Depreciation on Machinery	....	....	795

Donations	317	922	1,055
Taxes: Federal, State and City	2,524	19,657	....
City Taxes	....	....	6,956
Int. on Borrowed Capital	5,941	878	84
Loss on Bad Accounts	1,232	1,698	5,009
Loss on Adjustments and Sale of Capital Assets	35	149	109
Total Expenses	$ 275,386	$ 337,704	$ 370,478
Net Profit	$ 95,598	$ 98,871	$ 158,053

Some Special Forms of Income Sheets

20.

On page 49 of the Financial World for July 11, 1921, there appears the following statement of the affairs of the Interborough Rapid Transit Co.:

Interborough Rapid Transit Company

Growth of Traffic, Revenues, Costs, Profits, Charges, Dividends, Fiscal Years Ending June 30 (1921 estimated) Traffic Growth, Subways Especially

	1921	1920	1919
Subways, passengers a day	1,750,000	1,601,361	1,263,417
Manhattan Ry. (Elevated)	1,030,000	1,008,291	952,941
Total, for year	1,018,000,000	955,133,110	809,335,658
Revenues—Including Miscellaneous			
Income from subways	$35,300,000	$32,157,819	$25,127,152
Manhattan Ry. (Elevated)	20,200,000	19,928,961	18,687,359
Combined Revenue	$55,500,000	$52,086,780	$43,814,511

Operating Costs, Before Fixed Charges			
Operating taxes, depreciation, maintenance, etc.:			
subways	$21,800,000	$18,598,252	$15,260,074
Manhattan Ry. (Elevated)	16,200,000	15,720,377	14,107,409
Combined costs	$38,000,000	$34,318,629	$29,367,483
Ratio: Costs to Revenue			
Subways	61%	57.9%	60.6%
Manhattan Ry. (Elevated)	80%	78.6%	75.4%
Combined	68%	66.0%	66.9%
Profits, Before Fixed Charges			
Subway profit	$13,500,000	$13,559,566	$ 9,867,078
Manhattan Ry. (Elevated)	4,000,000	4,208,594	4,579,950
Combined profit	$17,500,000	$17,768,160	$14,447,028
Profit, a Passenger, on 5c. Fare			
On subways	2.01c	2.31c	2.14c
On Manhattan Ry.	1.06	1.14	1.32
Combined	1.71c	1.86c	1.80c
Fixed Charges, on Bonds, Notes, Rentals			
Against subways	....	$10,928,613	$ 9,574,706
Against Manhattan Ry.	....	9,075,383	8,682,662
Combined charges	$21,500,000	$20,003,996	$18,257,368
Itemized charges.			
To city, for subways	2,450,000	2,428,488	2,413,638
"El" rentals	4,235,000	4,235,000	4,235,000
"El" bond guarantee	1,808,280	1,808,280	1,808,280
IRT. bond charges	....	$ 9,253,911	$ 8,354,381
IRT. note interest	....	1,838,980	1,009,142
Sundries, rents, etc.	....	439,237	437,027
Total charges	$21,500,000	$20,003,996	$18,257,368

Net Profit, After Charges

(Exclusive of "accruals" or guaranteed returns to IRT., as a first lien on future profits.)

Subway profits, net		$ 2,630,953	$ 292,372
Manhattan Ry.		4,866,788[1]	4,102,711[1]
Combined net profit	$ 4,000,000	$ 2,235,836[1]	$ 3,810,340[1]

Dividends Paid by I. R. T. Co.

(Income of Interboro Consolidated Corporation, in which public holds stocks.)

Dividend, amount	Nil	Nil	$ 875,000
Rate on IRT. stock	Nil	Nil	2½%

Discuss this report, and indicate the purposes which may be served by such a statement.

21.

On page 46 of the 1920 report of the American Telephone and Telegraph Co. the following statement of earnings and expenses appears:

American Telephone and Telegraph Company

Statement of Earnings and Expenses for the Year 1920.

Earnings:	1920
Dividends	$ 34,800,467
Interest	12,969,756
Telephone Operation Revenues	56,030,624
Miscellaneous Revenues	146,141
Total	$103,946,988
Expenses	33,260,084
Net Earnings	$ 70,686,904
Deduct Interest	18,865,689
Balance	$ 51,821,215
Deduct Dividends	35,376,793
Balance	$ 16,444,422
Appropriated for Contingencies	8,000,000
Balance, Added to Surplus	$ 8,444,422

[1] Deficit.

As indicated by the forms of income received what is the character of this Company? Discuss the arrangement of the statement given.

22.

The Goodrich Rubber Company published the following condensed income sheet covering its operations for the year ended December 31, 1913:

Net Sales	$39,509,346
Expenses	36,451,233
Balance	$ 3,058,113
Miscellaneous Income	491,316
Total Income	$ 3,549,429
Treasury Stock Reduced from Cost to par Value	168,417
Depreciation	541,359
Interest on Bills Payable	239,906
Net Profit	$ 2,599,747
Preferred Dividends	2,100,000
Common Dividends	600,000
Deficit for Year	$ 100,253

Criticize the form in which the information is presented.

23.

(Form B)

The following income sheet was published by the X Manufacturing Company for the year ending December 31, 1915:

Sales	$ 1,000,000	
Goods in Process (Dec. 31)	30,000	
Merchandise on hand (Dec. 31)	100,000	
Raw Materials (Dec. 31)	20,000	
	$1,150,000	
Less Selling Expenses	250,000	$900,000

Goods in Process (Jan. 1)	20,000	
Merchandise (Jan. 1)	80,000	
Raw Materials (Jan. 1)	15,000	
Materials Purchased	175,000	
Wages Paid	320,000	
Wages Due and Unpaid (Dec. 31)	30,000	
Manufacturing Expenses	200,000	
Cost of Manufacturing		840,000
Net Profit		$ 60,000
Dividends Declared		32,000
Surplus for Year		$ 28,000

Rewrite this income sheet in more intelligible form.

24.

(Form B)

The Purdy Water Company presented the following income sheet to the city council as proof of its statement that the present rates were not high enough to produce a net revenue:

Revenue:		
Sale of Water	$ 45,000	
Sale of Miscellaneous Pipe............	5,000	$ 50,000
Expense:		
Operating	$ 20,000	
Repairs	1,575	
Depreciation	15,250	
Interest on Bonds	8,500	
Sinking Fund Installment	10,000	$ 55,325
Net Deficit		$ 5,325

Does the statement submitted substantiate the Company's claim? Explain, rewriting the statement.

25.

A company furnished the following income sheet to its income bondholders as explanation of the fact that no interest had been paid.

Sales	$175,000	
Less Decrease in Inventory	10,000	$165,000
Expense:		
Materials	$ 25,000	
Labor	70,000	
Fuel	13,000	
Depreciation	17,000	
Interest (First Mortgage)	15,000	
Sinking Fund (First Mortgage)	8,000	
Discount on Preferred Stock	18,000	166,000
Net Deficit		$ 1,000

The total interest on the income bonds would have amounted to $15,000. Would the income bondholders have a basis for action to compel the payment of the interest? Is the above a satisfactory exhibit for any purpose?

Further Classification of Operating Accounts

26.

What purposes may be served by the presentation of a detailed operating division in the income sheet?

27.

Prepare a report on a classification of operating accounts for a gas plant. Obtain the material for this from the uniform classification approved by the public utility commission of some one of the states.

28.

Study the following income sheet, noting carefully the principal classes emphasized in the operating accounts. Make any comments on the arrangement which occur to you.

X and Y, Inc.

Profit and Loss Statement for Year Ended Dec. 31, 1918.

Sales		$ 21,137,369
Less:		
Discounts and Allowance		445,919
Merchandise Returned		320,394
		$ 766,313
Net Sales		$ 20,371,056
Expenses		
Cost of Sales:		
Materials, etc.		$ 11,170,139
Operating Expense (including wages)		5,060,202
General Expense		319,619
Decrease in Inventory of Finished or Partly Finished Goods		463,802
Manufacturing Cost of Sales		$ 17,013,762
Gross Profit from Manufacturing		$ 3,357,294
Selling Expense:		
Velvet and Plush Departments	$	134,153
Carpet Department		58,796
Mill Expenses		218,930
Men's Wear Department		32,749
Dress Goods		17,385
Commission Agents		76,296
New York Office Expense		2,730
Reserve for Doubtful Accounts		2,000
Total Selling Expenses	$	543,039

Profits Before Adjustments	$	2,814,255
Profits on Sale of Raw Silk		12,060
Profits on Sale of Dye House Supplies		2,007
Net Profit from Operating of Mills	$	2,828,322
Other Income		110,449
Total	$	2,938,771
Administrative and General Expenses:		
Salaries of Officers		32,166
Warehouse Expenses		20,792
Office and General Expense		34,088
Contributions to War Chest		15,000
Insurance and Hauling		7,336
State and Federal Taxes		2,835
Interest on Bills Payable		106,197
	$	218,414
Profit before Allowance is made for Est. Fed. Taxes	$	2,720,357
Estimated Fed. Income and War Exc. Profits Tax		1,435,000
Net Profit	$	1,285,357

28.

Study the following income sheet carefully. Can you suggest any improvements in classifications?

General Manufacturing and Trading Account,
Year Ended, Dec. 31, 1918.

Sales	$	5,538,337
Less: Discounts		32,174
Net Sales	$	5,506,163
Transfers to Other Departments		323,946
Total	$	5,830,109

Prime Cost:		
Inventory of Raw Material and in Process at Beginning of Period	$	249,376
Purchases, including Transfers		2,554,037
Wages		389,628
Total	$	3,193,041
Less: Inventory of Raw Material and in Process at End of Period		285,667
Total Prime Cost	$	2,907,374
Factory Burden:		
Rent		46,043
Power, Heat and Light		279,964
Insurance		39,913
Factory Expense		62,273
Taxes		5,703
Depreciation on Bldgs, Machinery, and Equipment		122,446
Total Factory Burden	$	556,342
Cost of Finished Goods:		
Add: Inventory of Manufactured Goods at Beginning of Period		810,713
Less: Inventory at End of Period		773,667
Difference	$	37,046
Total Cost of Sales	$	3,500,762
Gross Profit	$	2,329,347
Selling and Administration:		
Branch Office—Selling Expense	$	423,597
Covering Contracts		462,489
Branch Office—Salaries		31,424
Branch Office—Insurance		1,535

Branch Office—Taxes		61,427
Officers' and Office Salaries		120,869
General Expense		33,710
Depreciation—Office Furniture and Fixtures, Branch Office		2,958
Advertising		46,749
Traveling Expenses		9,708
Reserve for Bad Debts		39,516
Shipping Expense		35,562
Total Selling and Administration Expense	$	1,269,544
Net Profit on Operations	$	1,059,803

REVENUE ACCOUNT ANALYSIS

Credits		
Revenue Stamps Redeemed	$	172
Dividends		3,000
Rents		307,228
Interest		46,270
Crude Fibre Sales		184,262
Printing Department		2,445
General Manufacturing and Trading Profits		1,059,803
Total Credits	$	1,603,180
Charges		
Bond Expenses and Premium Amortized	$	25,447
Printing Department		1,500
Garage		6,323
Pulverizing Department		3,825
Worthless Accounts Written Off		73,070
Total Charges	$	110,165
Net Gain for Year	$	1,493,015

Profit and Loss Account Analysis

Credits		
Balance at Beginning of the Year	$	3,850,000
Net Profits for the Year		1,493,015
Total Credits	$	5,343,015
Charges		
U. S. Excess Profits Tax (1917)	$	153,771
Bond Interest		48,916
Preferred Stock Dividends		80,000
Buildings Razed, Machinery Scrapped		2,180
Reserve for Depreciation, Asbestos Mine		3,820
Total Charges	$	288,687
Undivided Profits as Shown by Balance Sheet	$	5,054,328

30.

Rewrite, completely, the following income sheet, bringing together as far as you can important classes of operating accounts. Explain any doubtful points.

Profit and Loss Statement, Year Ending Dec. 31, 1918

Gross Sales, less Returns and Allowances.		$8,991,168
Inventory, Jan. 1, 1918	$1,720,398	
Cloth and Trimming Purchases	3,576,464	
Labor and Wages, Manufacturing	1,293,464	
Contract Labor Trim. and Exp.	2,727,049	
Manufacturing Expenses	25,134	
	$9,342,509	
Inventory, Dec. 31, 1918	1,956,705	7,385,804
		$1,605,364

Gross income from operations other than Trading or Manufacture		
Discounts, Cloth	$ 46,707	
Collection of Bad Debts	7,167	
Insurance Recovery	5,677	
Discounts, Expenses	3,968	
Anticipation Purchases	6,899	
Discounts—Trimmings	53,084	
Allowances—Purchases	2,096	
Sundries	93	125,691
Interest on U. S. Liberty Bonds		5,392
Interest from Other Sources		3,808
Rentals		2,643
Gross Income		$1,742,898
Expenses		
Wages	$ 165,586	
Salesmen	220,693	
Advertising	214,666	
Sales Discount	147,842	
Sales Anticipation	1,995	
Office—Boston	606	
Office—Chicago	803	
Office—New York	16,305	
General Expense	19,100	
Special Order Dept. Expense	22,133	
Packing	14,384	
Coal	25,328	
Insurance	19,114	
Freight, Express, Drayage, Parcel Post	15,338	
Auto Truck Expense	9,259	
Rent	42,500	
Auditing	1,200	
Boiler and Engine Expense	1,879	
Collection Expense	1,876	
Dues and Subscriptions	6,698	

Medical	2,008	
Telephone and Telegraph	5,528	
Office Supplies, Print. and Sta.	11,059	
Postage	7,552	
Paper and Twine	1,070	
Sundries	902	
Officers' Salaries	132,753	
Supplies and Repairs	30,825	
Maintenance, Leased Property	4,985	
Repairs—Outside Properties	874	
Interest	83,538	
Taxes	2,967	
Bad Debts	12,766	
Depreciation	21,794	
Amortization of War Facilities	102,573	1,368,499
Net Profit		$ 374,399

THE CONSOLIDATED INCOME SHEET

31.

On pages 11 to 22 of Moody's Manual of Corporation Securities for 1916 there is given a description of the properties controlled by the American Gas Company. A consolidated income sheet is given on page 13 and separate income sheets of the affiliated companies on the following pages. Study these statements carefully and write a report on the form and content of the consolidated income sheet.

32.

Study the following consolidated income account of the United States Steel Corporation as published in Moody's Manual for 1920, page 1900, and write a narrative statement covering the situation.

General Account of the United States Steel Corp. and Its Subsidiary Companies, Years Ended Dec. 31.

	1919	1918
Gross sales and earnings........	$1,448,557,835	$1,744,312,163
Mfg. cost and operating expense..	$1,140,988,637	$1,178,032,666
Admin., selling and gen. exp., excluding exps. of transp. cos.....	31,632,076	29,786,576
Taxes	81,594,337	297,645,048
Com'l discounts and interest	9,062,142	9,646,361
Total expenses	$1,263,277,192	$1,515,110,651
Balance	$ 185,280,643	$ 229,201,512
Miscl. mfg. etc., gains	2,840,639	3,402,410
Rentals received	323,282	255,568
Federal comp. of subsid. RRs., est.	15,582,724	15,510,511
Total net income............	$ 204,027,288	$ 248,370,001
Proport'n of net prof. of prop's. owned whose gro. rev. etc. are not included	381,795	349,192
Int. and divs. on investments, etc.	12,764,361	20,957,143
[1]Profits earned by Sub. Cos.	12,125,446	....
Total income	$ 229,298,890	$ 269,676,336
Sub. Co. interest charges	8,701,577	8,930,424
Balance	$ 220,597,313	$ 260,745,912

[1] Net balance of profits earned by subsidiary companies on sales made and service rendered account of materials on hand at close of year in purchasing companies' inventories and which profits had not been realized in cash from the standpoint of a combined statement of all companies up to close of year.

Less profits earned by Sub. Cos.[2]		1,098,232
Res. ag'nst high cost of inventories	38,710,396	20,297,000
Proportion of cost of war facilities installed	38,297,854	40,000,000
Net earnings	$ 143,589,063	$ 199,350,680

33.

On page 36 of the 1920 report of the American Telephone and Telegraph Co. is presented a consolidated income sheet that appears as follows:

Bell System Income Statement for Year Ending Dec. 31, 1920.
(Duplications Excluded)

Exchange Revenues................	$301,282,599	
Toll Revenue	141,883,485	
Miscellaneous Revenues	6,276,031	
Total Operating Revenues		$449,442,115
Depreciation	$ 65,731,071	
Current Maintenance	69,665,080	
Traffic Expenses	145,848,181	
Commercial Expenses	45,075,272	
Gen. and Miscl. Expenses	20,500,013	
Total Operating Expenses......		346,819,617
Net Operating Revenues		$102,622,498
Uncollectible Revenues	$ 1,208,798	
Taxes	27,841,334	29,050,132
Operating Income		$ 73,572,366
Non-operating Revenues—Net		11,692,610
Total Gross Income		$ 85,264,976

[2] Net balance of profits earned by subsidiary companies on sales made and service rendered account of materials which were on hand at first of year in purchasing companies' inventories and which profits have since been realized in cash from the standpoint of a combined statement of the business of all companies.

Rent and Miscellaneous Deductions...	$ 5,755,808	
Interest Deductions	31,724,103	37,479,911
Balance Net Income		$ 47,785,065
Deduct Dividends		39,999,579
Surplus Earnings		$ 7,785,486

Explain the difference between this statement and the one given in Problem 21 (which is for the same period) in so far as you can.

34.

For statistical purposes it is often necessary that statements of revenue, expenses, and net earnings, for an entire industry, be prepared. Assuming that the information desired were available how would you proceed to prepare such a statement? Show that industrial research is handicapped by the lack of rigid uniformity in accounting classifications such as have been prescribed for the railroads by the Interstate Commerce Commission.

XXVI

THE GENERAL BALANCE SHEET

General Balance Sheet Captions

1.

Would you agree with the following statement taken from an accounting book? "A balance sheet can only be an approximation to facts, the degree of approximation depending upon the skill and accuracy with which the estimates are made." Explain what you consider to be the main function of a balance sheet.

2.

What important comparisons can be made between the main groups of accounts on each side of the balance sheet?

3.

A corporation endorsed a $10,000 promissory note for a customer. In case the customer should be unable to pay the corporation would have to redeem the note out of its own funds. How would you advise that this transaction be treated with respect to the balance sheet?

4.

A manufacturing company purchased a piece of real estate for $500,000. The company paid $250,000 in cash and gave a first mortgage for the balance. The real estate was carried on the balance sheet at $250,000, and no mention was made of the mortgage. Would you consider this proper? Explain fully.

5.

Rewrite the following balance sheet, classifying the accounts on each side into important subgroups as far as you deem this to be expedient. Comment on any doubtful points.

Balance Sheet as at Dec. 31, 1918.

Real Estate and Plant	$ 498,909
Departmental and General Business Equipment, Less Depreciation.	34,715
Merchandise	429,703
Accounts Receivable	184,476
Notes Receivable	3,777
Cash on Hand and in Banks........	86,388
Investments—Liberty Bonds	22,700
Departmental and General Business Supplies	3,769
Insurance Premiums Prepaid	2,772
Capital Stock Tax Prepaid	145
Miscellaneous Taxes Prepaid	215
Certified Checks Outstanding	600
Interest on Bank Deposit Accrued..	208
Interest on Investments Accrued ...	219
Expense Items Paid in Advance	156
Miscellaneous Accrued Items	150
Deposit on Machine Shop Property.	250
Total Assets	$1,269,152
Capital Stock (issued and paid in)..	$ 615,725
Mortgages Payable	90,000
Accounts Payable	78,689
Notes Payable	65,000
J. B. Van Fleet	35,000
Deposits Paid on Account of Merchandise Sales Undelivered....	5,579
Full Paid Sales Undelivered	6,824
Micellaneous Credits Unapplied....	804

U. S. Gov't. Taxes Accrued (1918, estimated)	60,000
Interest on Mortgages Accrued ...	562
Commissions and Bonuses Accrued..	33,112
State Corporation Tax Accrued	357
Salaries and Wages Accrued	1,503
Surplus	117,944
Net Profit for Year	158,053
Total Liabilities and Capital...	$1,269,152

ILLUSTRATIVE BALANCE SHEETS

6.

Rearrange the accounts in the following balance sheet in a form more convenient for comparative purposes:

Assets

Real Estate ....$	125,000
Cash	50,500
Buildings	500,000
Raw Materials	170,000
Finished Goods	225,000
Goodwill	250,000
Consignments	50,000
Equipment	125,000
Unissued Stock Preferred	150,000
Unissued Stock Common	137,225
Notes Receivable	75,000
Accounts Receivable	125,000
Investments (Stocks and Bonds)...	325,500
	$2,308,225

Liabilities

Capital Stock Preferred ....$	500,000
Capital Stock Common	750,000
Bonds	400,000

Notes Payable	175,000
Accounts Payable	215,225
Reserve for Depreciation	18,000
Reserve for Uncollectible Accounts	20,000
Reserve for Contingencies	5,000
Surplus	225,000
	$2,308,225

Give your opinion as to the financial condition of this concern.

7.

Suppose that you have access to the following additional information with regard to the company whose balance sheet was given in the last problem. The Reserve for Depreciation is inadequate to care for the decrease in property value by $20,000. Finished goods were inventoried at selling price. The mark up for selling expenses and profit amounts to 25% of selling price. Restate the balance sheet in the light of these facts.

8.

The following balance sheet was published by the X Mining Company for December 31, 1916:

Assets

Property Account	$28,755,434
Equipment	1,194,708
Stripping Overburden	150,000
Extraordinary Repairs	75,000
Prepaid Royalties	85,907
Inventory—Coal	1,335,862
Accounts Receivable	591,793
Notes Receivable	336,000
Cash	503,822
Reserve Funds	282,559
Company's Bonds in Treasury	312,000
Investment Securities	161,000
	$33,784,085

Liabilities

Common Stock	$15,000,000
Preferred Stock	12,600,000
Bonds	2,440,000
Accrued Interest	24,006
Accrued Taxes	20,440
Premium on Preferred Stock	13,020
Reserve for Depreciation (Coal Depl'n)	111,529
Notes Payable	83,402
Accounts Payable	40,040
Accrued Wages	45,523
Reserve for Sinking Fund	130,103
Contingency Reserve	106,060
Surplus	3,169,962
	$33,784,085

Place the accounts in proper groups and write out your opinion of the condition of this corporation.

9.

General Balance Sheet, Dierk's Lumber and Coal Company, Dec. 31, 1914. Moody's Manual, 1916, p. 2519.

General Balance Sheet,
December 31

Assets	1914	Liabilities	1914
Real Estate and Personal Property	$ 320,579	Capital Stock	$2,697,000
Timber and Timber Lands	2,557,095	Bonded Debt	475,000
Saw Mill Plant	57,857	Accounts and Bills Payable	359,974
Accounts and Bills Receivable	1,347,659	Profit and Loss	1,939,528
Merchandise	251,572		
Stocks in Other Companies	875,372		
Cash	61,368		
Total	$5,471,502	Total	$5,471,502

Statement of Working Capital,
December 31

Current Assets	1914	Current Liabilities	1914
Accounts and Bills Receivable	$1,347,619	Accounts and Bills Payable	$ 359,974
Merchandise	211,572		
Cash	61,368		
Total	$1,660,599	Total	$ 359,974
Net Working Capital, Dec. 31			$1,300,625

Criticize the form in which the information is presented. Assuming all valuations properly made what is the financial condition of this concern?

Classification of Asset Accounts

10.

Explain the use of the controlling account principle as applied to fixed property accounts or merchandise accounts. What is a property account register?

11.

Draw up a classification of fixed asset accounts which would meet the requirements of a machine tool manufacturing business. Prepare a list of controlling accounts for the current assets likely to be required by such an establishment.

12.

The following is the asset side of a manufacturing company's balance sheet. Rewrite in condensed form, suitable for publication.

Balance Sheet, Dec. 31, 1918.
Assets

Cash	$ 85,875
Trade Accounts and Notes Rec.	313,871
Other Accounts (Advanced to Salesmen for Traveling Expenses)	150

War Material	106,012
Work in Process	422,461
Finished Products	297,531
Supplies	189,448
U. S. Bonds—1st Loan	200
U. S. Bonds—2nd Loan	25,000
U. S. Bonds—3rd Loan	15,000
U. S. Bonds—4th Loan	23,000
Foreign Bonds	500
Stocks (Domestic)	325
Deferred Charges to Future Operations	13,051
Land	74,127
Buildings	375,987
Machinery	307,179
Tools and Minor Equipment	54,436
Delivery Equipment	14,799
Office Furniture	8,653
Power Plant and Accessories	28,207
Electric Machinery and Appliances	34,652
Metal Patterns	135,231
Wood Patterns	27,686
Metal Core Boxes	51,370
Wood Core Boxes	4,523
Metal Flasks and Wood Flasks	6,336
Wood and Miscl. Shop Patterns	2,256
Metal Dryers	1,182
Furnaces and Forges	42,318
Plans and Drawings	9,618
Laboratory Equipment	2,767
Fixtures, Factory	61,341
Fixtures, Supply Store	1,104
Equipment in Process	5,193
	$2,739,389

13.

The following is the asset side of a shoe manufacturer's balance sheet. Rewrite in summary form, using only the following headings: cash, receivables, inventories, investments, goodwill, equipment, and deferred charges.

Balance Sheet as at Oct. 31, 1918.

Assets

Cash ....$	5,045
Accounts Receivable	128,966
Loans to Employees	663
Machinery, Tools, and Parts	17,716
Lasts and Patterns	113,648
Forms	2,018
Clicking Dies	658
Furniture and Fixtures	21,429
Upper Leather	84,460
Sole Leather	60,188
Findings	12,083
Supplies	4,602
Shoes in Process	147,758
Finished Goods	15,977
Damaged Shoes	125
Returned and Rejected Shoes	78
Samples	1,656
Liberty Loan Bonds	21,600
United Shoe Mach. Co. Stock......	1,478
War Savings Stamps	100
Advances to Salesmen	1,497
Unexpired Insurance	2,851
Prepaid Rent	1,234
Life Insurance	2,563
Goodwill	50,000
Total Assets ....$	698,413

Miscellaneous Problems, Income Sheet and General Balance Sheet

14.

From the following trial balance and inventories of a manufacturing company prepare a working sheet and classified income and balance sheets.

Trial Balance Dec. 31, 1917.

Real Estate	$ 25,000	
Raw Material (Jan. 1, 1917)	15,000	
Plant and Machinery	35,000	
Accounts Receivable	24,000	
Cash	1,200	
Finished Goods (Jan. 1, 1917)	7,000	
Materials Purchased	38,000	
Direct Labor	20,000	
Indirect Factory Labor	4,000	
Sales Department Expenses	2,500	
General Administrative Salaries	6,000	
Interest	600	
Capital Stock		$ 40,000
Bonds (5%)		20,000
General Factory Expense	1,200	
Taxes	500	
Rent Paid	3,000	
Sales Discounts	1,250	
Fuel for Factory	3,000	
Insurance on Plant	1,150	
Freight on Materials Purchased	1,500	
General Expenses	600	
Accounts Payable		4,000
Sales		100,000
Surplus		26,500
	$190,500	$190,500

Accrued interest on bonds, $475. Finished goods on hand Dec.

31, 1917, $8,000. Raw materials, Dec. 31, 1917, $25,000. Write off 2% of the face of accounts receivable for uncollectible accounts, and 10% of plant and machinery for depreciation. Declare a 6% dividend, and set aside $2,000 in a contingency reserve. Set up a reserve for additions and betterments of $5,000 out of the surplus.

15.

The following is the trial balance of a manufacturing company for Dec. 31, 1917:

Capital Stock		$150,000
Bonds		100,000
Surplus		42,000
Inventory Finished Goods (Jan. 1, 1917)	$ 32,000	
Inventory Raw Materials (Jan. 1, 1917)	45,000	
Purchases	135,000	
Sales		479,680
Reserve for Depreciation		20,000
Reserve for Uncollectible Accounts		9,600
Purchase Discounts		1,730
Sales Discounts	2,500	
Sales Department Expenses	3,650	
Factory Wages	135,500	
Power	17,000	
Repairs to Equipment	2,800	
Factory Expense	9,500	
Insurance on Factory	2,200	
Plant and Machinery	125,000	
Administrative Salaries	37,000	
Branch Sales Department Buildings	150,000	
Notes Receivable	50,000	
Accounts Payable		30,000
Furniture and Fixtures	4,000	
Cash	75,500	
Taxes	960	
Advertising	5,400	
	$833,010	$833,010

On December 31, 1917, the inventories were as follows: finished goods, $26,000; raw materials, $15,750. The plant and machinery depreciated $10,000. The branch sales building is depreciated by $8,000. Declare a 6% dividend. Set aside a sinking-fund reserve of $5,000, and a contingency reserve of $10,000. Declare a stock dividend of 25%.

Prepare a working sheet and exhibit properly classified income and balance sheets.

16.

From the following trial balance and particulars of the Andrews Manufacturing Company, prepare income and surplus sheets.

Trial Balance Dec. 31, 1917.

Real Estate	$ 200,000	
Buildings	158,000	
Equipment	847,500	
Goodwill	150,000	
Common Stock		1,000,000
Income Bonds (6%)		500,000
Cash	46,474	
Selling Expenses	5,600	
Interest (Commercial)	3,300	
Insurance	3,031	
Accounts Receivable	156,029	
Raw Materials Inventory (Jan. 1, 1917)	94,567	
Finished Goods Inventory (Jan. 1, 1917)	90,000	
Factory Expenses General	989	
Labor (Factory)	585,000	
Fuel	84,000	
Salaries for Salesmen	40,000	
Salaries General Officers	20,000	
General Office Expense	5,000	
Purchases Raw Material	691,985	
Bond Interest (First Mortgage)	2,000	
Discount on Purchases		10,120
Accounts Payable		5,871

Reserve for Depreciation		58,272
Sales		1,442,391
Notes Payable		40,300
First Mortgage Bonds		100,000
Surplus		26,521
	$3,183,475	$3,183,475

Inventory of raw materials Dec. 31, 1917, $250,000; of finished goods, $175,000. The uncollectible accounts are estimated at 1% of the face of accounts receivable. Accrued depreciation on factory, $20,000; on selling department equipment, $5,000; on office building and furniture, $2,500. Accrued interest on bonds, first mortgage, $2,000. The income bonds are to receive 6% in case the requisite amount is earned over and above the interest on first mortgage bonds.

17.

The trial balance of the City Gas Company for December 31, 1916, is as follows:

Land	$ 15,000
Buildings	50,000
Production Equipment	25,000
Gas Mains	175,000
Materials	2,500
Coal	50,000
Labor	65,000
Repairs	15,250
Miscellaneous Supplies	3,500
Superintendence (Production)	5,000
Salaries (Clerks)	8,200
Salaries General	6,500
Office Expenses	2,200
Insurance	1,500
Taxes	4,500
Interest	1,450
Cash	2,500

Consumers' Accounts	3,500	
Capital Stock		$100,000
Bonds		100,000
Notes Payable		3,500
Gas Sales		210,000
Coke Sales		10,250
Tar Sales		5,000
Surplus		7,850
	$436,600	$436,600

The depreciation on mains amounts to 1%; on buildings and equipment, 5%. The inventory of materials amounts to $500; of coal, $2,000; of supplies, $1,600; of insurance, $75; of coke, $800; of tar, $300.

The directors declare a 10% dividend; set aside $15,000 as a contingency reserve; place $10,000 in a sinking fund reserve to retire the bonds; and carry the balance of net revenue to Surplus.

Prepare working sheet and income and balance sheet exhibits.

18.

Trial balance of the B. Co., June 30, 1919, covering the period from Jan. 1, 1919, to date.

Capital Stock ....$		$200,000
Bonds		100,000
Discount on Bonds	14,877.47	
Materials Purchases	50,000	
Materials Inventory	25,000	
Goods in Process and on Hand	20,000	
Sales		120,000
Cash	12,000	
Real Estate and Buildings	60,000	
Machinery and Tools	42,000	
Supplies	6,000	
Wages and Salaries	25,000	
Insurance and Taxes	1,200	

Surplus		6,000
Reserve for Depreciation of Plant and Equipment		8,000
Sinking Fund Reserve		10,000
Sinking Fund Assets	10,000	
Accounts Receivable	15,000	
Allowance for Bad Accounts		177.47
Repairs and Maintenance	5,500	
Improvements on Leased Property	2,000	
Advertising	2,500	
Office Expense	3,600	
General Expense	1,500	
Shop Expense	4,200	
Interest	.....	.....
Rent		600
Liberty Bonds	144,400	
Totals	$444,777.47	$444,777.47

Adjustments

(1) Materials and Merchandise Inventories: Materials, $30,000; Goods in Process and on Hand, $18,000.

(2) Real Estate, Buildings, Machinery and Tools are to be depreciated at the rate of 10% per annum on the *net* valuation now appearing in the accounts.

(3) Supplies on hand, $1,000; salaries prepaid, $200; wages unpaid but accrued, $600; taxes accrued, $1,200; insurance unexpired, $600.

(4) The Accounts Receivable item should be written down 5% of the *gross* valuation now appearing in the accounts.

(5) The improvements on Leased Property are valued at cost.

(6) A semi-annual payment of bond interest is due July 1, 1919. The bond rate is 4%; the effective rate is 6%.

(7) The rent item covers a payment to the B Company by another firm for a year's rent (Jan. 1, 1919—Jan. 1, 1920) for office space in its building.

From the above information prepare a working sheet. Construct classified income and balance sheet exhibits.

19.

(From "Public Accountant Examination," Massachusetts, 1914.)

Jones Manufacturing Co.
Trial Balance, Dec. 31, 1913.
(Before Closing.)

Accounts Payable		$ 22,560.71
Accounts Receivable	$ 42,739.66	
Capital Stock		150,000.00
Cash in Banks	3,706.82	
Commission	7,750.71	
Depreciation	12,067.30	
Discount on Sales	4,986.22	
Discount on Purchases		6,792.40
Finished Product (Inventory at Dec. 31, 1912)	110,630.84	
Freight—Inward	4,709.81	
Freight—Outward	3,542.39	
Factory Expense	52,796.57	
Insurance	5,372.90	
Interest	3,850.00	
Labor	179,473.82	
Machinery and Equipment	120,672.96	
Material Purchased	158,691.26	
Material Inventory (At Dec. 31, 1912)	10,786.90	
Notes Payable		60,000.00
Office and Selling Expenses	14,790.82	
Petty Cash	150.00	
Prepaid Taxes	672.80	
Prepaid Interest	375.00	

Power	7,500.00	
Reserve for Depreciation		20,978.23
Repairs	5,281.76	
Rent	15,000.00	
Salaries	32,250.00	
Sales		570,478.31
Supplies	6,872.90	
Surplus		42,146.08
Taxes	2,937.50	
Traveling Expenses	4,836.24	
Unexpired Insurance	6,821.16	
Work in Process (Inventory Dec. 31, 1912)	53,689.39	
	$872,955.73	$872,955.73

Inventories at Dec. 31, 1913, are:

Material	$ 9,877.44
Work in Process	56,091.29
Finished Product	71,170.10

From the above Trial Balance and facts prepare:

(a) Balance Sheet, Dec. 31, 1913.

(b) Statement showing cost of manufacture and goods sold.

(c) Profit and Loss Account.

XXVII

COMPARATIVE AND CONSOLIDATED BALANCE SHEETS

The Comparative Balance Sheet

1.

What information concerning the financial history of a business may be obtained from a comparative balance sheet that is not obtainable from an income sheet?

2.

Analyze the following comparative balance sheet and state in narrative form all the facts exhibited.

Balance Sheet

Assets	Dec. 31 1915	Dec. 31 1916
Real Estate	$ 45,000	$ 51,000
Buildings	30,000	30,000
Machinery	60,000	47,500
Goodwill	25,000	25,000
Raw Materials	10,500	8,250
Finished Goods	49,000	65,000
Notes Receivable	15,000	18,000
Accounts Receivable	20,000	15,000
Investments	10,000	25,000
Cash	12,000	11,150
	$276,500	$295,900

Liabilities		
Common Stock	$100,000	$100,000
Preferred Stock	100,000	100,000
Mortgage		25,000
Accounts Payable	14,000	16,000
Notes Payable	26,000	1,000
Reserve for Depreciation	22,300	28,200
Surplus	14,200	25,700
	$276,500	$295,900

3.

The following is a comparative balance sheet of a corporation for December 31 of the years mentioned:

Assets	1914	1915
Real Estate	$ 150,000	$ 150,000
Building	323,553	316,614
Machinery	428,968	510,897
Additions and Betterments	215,500	859,684
Merchandise	616,520	653,553
Accounts Receivable	210,000	225,000
Cash	338,013	481,227
Discount on Bonds	18,215	16,400
	$2,300,769	$3,213,375
Liabilities		
Common Stock	$ 600,000	$1,200,000
Preferred Stock		300,000
Bonds	450,000	800,000
Notes Payable	25,000	150,000
Accounts Payable	24,505	99,760
Reserve for Sinking Fund	175,000	200,000
Reserve for Depreciation	175,000	195,000
Surplus	851,264	268,615
	$2,300,769	$3,213,375

Give a history of the business for the year 1915. Explain as fully as possible all changes on the liability side.

4.

The following is a comparative balance sheet of the Beltane Manufacturing Company for the years ending December 31, 1915 and 1916.

Assets	1915	1916
Real Estate	$150,000	$150,000
Plant	150,000	130,000
Machinery	95,000	90,000
Raw Materials	41,013	37,642
Finished Goods	48,687	62,358
Notes Receivable	50,300	40,042
Accounts Receivable	21,300	20,042
Sinking Fund	28,400	33,916
Depreciation Fund		30,000
Cash	20,350	14,129
	$605,050	$608,129
Liabilities		
Common Stock	$150,000	$150,000
Preferred Stock	150,000	150,000
Bonds	100,000	100,000
Notes Payable	54,010	16,919
Accounts Payable	63,101	67,294
Sinking Fund	28,400	33,916
Reserve for Uncollectible Accts.	4,499	4,000
Reserve for Depreciation	25,000	23,500
Surplus	30,040	62,500
	$605,050	$608,129

The board of directors fail to understand how there can be a large increase in surplus and at the same time a considerable decrease in cash. Prepare a statement explaining this apparent discrepancy. Would you advise this concern to borrow to pay a dividend?

5.

Comparative balance sheet of the Perrine Manufacturing Company, December 31:

Assets	1915	1916
Patents and Goodwill	$3,204,125	$3,266,864
Real Estate and Buildings (at cost)	783,053	794,574
Machinery and Tools (at cost)	635,731	655,794
Materials	886,987	878,346
Bonds (Investment)	100,800	100,800
Cash	58,319	52,045
Accounts Receivable	264,336	334,459
Bond Discount	52,553	49,937
Insurance (prepaid)	9,093	6,048
Deficit		6,088
	$5,994,997	$6,144,955
Liabilities		
Common Stock	$2,500,000	$2,500,000
Preferred Stock	2,000,000	2,000,000
Bonds	1,125,000	1,117,000
Notes Payable	300,000	425,000
Accounts Payable	67,779	102,955
Surplus	2,218	
	$5,994,997	$6,144,955

Give a history of the business for the year explaining as fully as possible the changes in each account. Criticize the accounting practices of this company.

6.

Comparative balance sheet of the Kelley-Hyde Company, December 31:

Assets	1914	1913
Patents and Goodwill	$14,000,000	$14,000,000
Plant and Machinery (at cost)	11,093,963	11,196,987
Sinking Fund	48,056	43,243

Materials and Supplies	7,502,037	8,828,582
Notes Receivable	311,240	440,254
Accounts Receivable	1,177,603	1,077,848
Cash	590,769	739,111
Prepaid Insurance, etc.	80,976	103,052
	$34,804,644	$36,429,077
Liabilities		
Common Stock	$ 8,750,000	$ 8,750,000
First Preferred Stock	9,215,000	9,215,000
Second Preferred Stock	6,535,000	6,535,000
First Mortgage Bonds	6,126,000	6,412,000
Notes Payable	453,000	1,806,200
Accounts Payable	220,033	600,344
Reserve for Sinking Fund	2,447,056	2,156,233
Surplus	1,058,555	954,300
	$34,804,644	$36,429,077

(a) Explain the changes in all accounts as far as possible.

(b) How is the sinking fund invested?

7.

The following balance sheet of the Package Confectionery Company, (incorporated Jan. 1, 1914, for the purpose of taking over and expanding already existing businesses), was published in Moody's Manual, 1916, p. 3225. Explain what is meant by each account and give a history of the enterprise as covered by the two balance sheets.

General Balance Sheet,
December 31.
Assets

	1915	1914
Real Estate, Machinery, Etc.	$ 534,732	$ 536,633
Cash and Debts Receivable	43,299	115,122
Inventories	157,242	143,489
Investments	230,201	100,000
Development and Organization Expense	102,950	38,069

Prepaid Items	5,686	12,565
Copyright, Etc.	1,001,662	1,000,869
Sinking Fund	3,635	
Total	$2,079,407	$1,946,747

Liabilities

	1915	1914
Capital Stock	$1,579,000	$1,518,000
Bills and Accounts Payable	406,140	300,684
R. E. Bonds	71,000	71,000
Expense Accrued	4,735	
Reserves	15,102	
Surplus	3,430	37,063
Profit and Loss		20,000
Total	$2,079,407	$1,946,747

8.

The following is a comparative balance sheet of the American Telephone and Telegraph Co., taken from the Company's 1920 report, p. 47.

Assets

	Dec. 31, 1919	Dec. 31, 1920
Stocks of Associated Companies	$490,792,068	$524,445,958
Bonds and Notes of the Net Advances to Associated Companies	162,137,133	190,549,044
Stocks of Other Companies	53,562,188	57,990,057
Special Demand Notes	12,000,000	7,587,935
Telephones	21,287,848	23,876,520
Real Estate	3,138,119	3,775,407
Office Furniture and Fixtures	336,521	435,492
Long Lines Plant	82,178,606	95,136,361
Trustees-Employees' Stock Purchase Plans	8,812,799	737,681

Current Accounts Receivable:		
Due from U. S. Govt.		
Account Compensation	9,483,715	
Other Current Accounts Receivable	8,737,763	8,697,431
Accounts Receivable in Suspense....	10,227,973	
Temporary Cash Investments	36,574,185	
Cash and Deposits	27,512,170	26,636,360
Total	$926,781,088	$939,868,246

Liabilities

	Dec. 31, 1919	Dec. 31, 1920
Capital Stock	$441,981,200	$442,825,400
4% Collateral Trust Bonds, 1929....	78,000,000	78,000,000
5% Collateral Trust Bonds, 1946....	77,434,900	76,461,100
5% Western T. & T. Co. Bonds, 1932	9,985,000	9,985,000
4% Convertible Bonds, 1936	2,589,000	2,589,000
4½% Convertible Bonds, 1933......	13,027,500	12,198,200
6% Convertible Bonds, 1925........	48,367,200	48,195,700
6% 3-Year Gold Notes, 1922.......	50,000,000	50,000,000
6% 5-Year Gold Notes, 1924.......	40,000,000	40,000,000
Dividend Payable January 15th.....	8,839,612	8,852,072
Interest and Taxes Accrued, not Due	6,408,390	6,773,978
Current Accounts Payable:		
Compensation Due Associated Companies from U. S. Govt.	7,858,620	
Other Current Accounts Payable	6,363,800	7,422,683
Employees' Benefit Fund...........	2,000,000	2,000,000
Reserve for Depr. and Contingencies	47,262,123	57,915,152
Surplus (Including Capital Stock Premiums and excluding Debt Discount and Expense	86,663,743	96,649,961
Total	$926,781,088	$939,868,246

(a) Explain the significance of each title.

(b) Prepare a statement from this balance sheet similar to the one on page 591 of the text.

(c) State in narrative form the history of the business for the year covered. Make use of the income sheet shown in Problem 21, Chapter XXV, if necessary.

9.

The statement below is a comparative balance sheet for the American Hide and Leather Co., taken from page 53 of Moody's Manual for 1920.

Balance Sheet of Company and Its Subsidiaries
June 30

Assets

	1919	1918
Cost of properties (a)	$27,009,062	$26,838,471
Sinking fund (b)	107,528	98,407
Materials and supplies (c)	11,840,993	11,889,481
Bills and accounts receivable (d)	3,878,452	3,854,207
Cash	1,926,400	1,077,946
Liberty loan bonds	1,315,850	800,550
Miscellaneous	168,611	158,849
Total	$46,246,896	$44,717,911

Liabilities

	1919	1918
Capital stock	$24,500,000	$24,500,000
Funded debt	2,507,000	3,156,000
Current liabilities	4,270,951	3,623,459
Sinking fund	5,428,016	4,969,066
Surplus	9,540,929	8,469,386
Total	$46,246,896	$44,717,911

(a) Including 4,517 shares preferred and 2,259 shares common stock of the American Hide & Leather Co. held in trust.

(b) Includes only cash and accrued interest, the par value of bonds in sinking fund ($4,891,000) not being treated as an asset.

(c) After deducting $700,000 reserve each year for possible depreciation in values.

(d) After deducting reserve of $259,136 for doubtful debts and discount.

Statement of Working Capital,
June 30
Current Assets

	1919	1918
Cash	$ 1,926,400	$ 1,077,946
Bills and accts recble	3,878,452	3,854,207
Inventories	11,840,993	11,889,481
Claims and sundries	7,569	15,417
Liberty loan bonds	1,315,850	800,550
Total	$18,969,264	$17,637,601

Current Liabilities

	1919	1918
Bills payable	$1,200,000	$2,200,000
Foreign exchange	621,747	....
Trade accounts	461,427	605,715
Interest accrued	170,500	170,500
Accrd. taxes, wages, etc.	1,817,277	647,244
Total	$ 4,270,951	$ 3,623,459
Net working capital, June 30	14,698,313	14,014,142

What information can you obtain from this statement in addition to that given in Problem 16, Chapter XXV?

10.

In Problem 17 of Chapter XXV is presented an income sheet for the American Ice Company. Below is given a comparative balance sheet for this company taken from the same source.

What additional data of importance are you able to obtain from this statement?

Consolidated Balance Sheet, October 31

Assets

	1919	1918
Goodwill, water and patent rights	$17,024,993	$17,023,663
General property account	14,519,809	14,728,212
Stocks and bonds	559,959	260,690
U. S. Govt. bond securities	663,835	207,079
Cash	2,324,499	719,905
Notes and accts. receivable	1,061,559	1,184,716
Fire insurance, etc., funds	592,711	587,683
Prepaid insurance premiums	7,964	11,242
Inventories, ice, coal, etc.	768,766	744,194
Total	$37,524,095	$35,467,384

Liabilities

	1919	1918
Preferred stock	$15,000,000	$14,920,200
Common stock	7,500,000	7,161,330
Accounts payable	843,601	642,827
Underlying bonds	297,200	115,900
Coll. trust bonds, American Ice Co.	1,037,000	1,262,000
First and gen. mortgage bonds	5,218,000	4,751,000
Real estate mortgages	19,000	212,030
Accrued liabilities	84,456	131,291
Damage claims payable	30,910	....
R. E. mortgages payable Jan. 16, 1920	110,000	....
Reserve for taxes	396,162	....
Reserves	554,996	737,231
Surplus	6,432,770	5,533,575
Total	$37,524,095	$35,467,384

Statement of Working Capital, October 31

Current Assets

	1919	1918
Cash	$2,324,499	$ 719,905
Accounts receivable	1,061,559	1,184,716
Inventories	768,766	744,194
U. S. Govt. securities	663,835	207,079
Total	$4,818,659	$2,855,894

Current Liabilities

Accounts payable	$ 843,601	$ 642,827
Accrued int. and rents	84,456	131,291
Damage claims payable	30,910	....
R. E. mortgages payable Jan. 16, 1920	110,000	....
Reserve for taxes	396,162	....
Total	$1,465,129	$ 774,118
Net working capital, October 31	3,353,530	2,081,776

II.

Assets

	As at Dec. 31, 1917	As at Dec. 31, 1918
Current Assets:		
Cash:		
In banks	$ 28,950	$ 78,751
On hand at stores and factories	5,558	4,749
	$ 34,508	$ 83,500
Notes receivable	$ 3,147	$ 3,178
Accounts receivable	490,245	455,444
	$ 493,392	$ 458,622

Stock on Hand:		
Materials	$2,966,809	$ 3,395,458
Finished goods	682,736	206,515
Supplies, revenue stamps, etc.	62,828	156,387
	$3,712,373	$ 3,758,360
Investments	$ 20,021	$ 20,021
Liberty bonds	64,000	390,000
Liberty bonds—employees' fund	25,000	4,800
Fixed Assets, Less Depreciation:		
Real estate	$ 373,966	$ 433,214
Mchry., fixt. and impr	155,858	267,011
Automobiles	2,855	12,832
	$ 532,679	$ 713,057
Charges deferred to future operations	$ 79,426	$ 68,482
Goodwill	5,000,000	5,000,000
	$9,961,399	$10,496,842

Liabilities

	As at Dec. 31, 1917	As at Dec. 31, 1918
Current Liabilities:		
Notes Payable:		
General	$ 220,000	$ 410,000
For Liberty bonds	....	225,000
Accounts payable	71,286	69,063
Accrued state and federal taxes	144,766	144,430
Dividends unpaid	....	490
	$ 436,052	$ 848,983
Mortgage on Johnstown plant		35,000
		$ 883,983

Excess of par value over amount paid for preferred stock acquired and not cancelled	$ 193	$ 1,020
Capital Stock:		
Preferred, 7% cumulative, less shares retired and reacquired	$2,600,000	$ 2,552,100
Common, 60,000 shares	6,000,000	6,000,000
	$8,600,000	$ 8,552,100
Surplus appropriated for retirement of preferred stock	$ 390,000	$ 447,900
Surplus	535,154	611,839
	$ 925,154	$ 1,059,739
	$9,961,399	$10,496,842

(a) Study the above statement and explain the significant changes in amounts between years.

(b) What is the common stockholders' equity on Dec. 31, 1917? The book value per share? Answer same questions for 1918.

(c) Assuming the regular preferred dividend was paid during 1918 and 10% on common, what was the net proprietary income for the year?

12.

Explain the principal changes occurring between years in the following comparative balance sheet, and, assuming no dividends have been paid, state the net proprietary income for the year 1918. What is the excess of assets over liabilities on Dec. 31, 1918? If you were a government auditor, scrutinizing this statement in connection with the company's tax return, what situations exhibited in this statement would you consider merited full investigation?

Balance Sheets as at December 31

Assets

	1917	1918
Office Furniture and Fixtures	....	$ 2,746
Cash	$ 66,224	230,652
Account Receivable	71,240	215,035
Salesmen's Advances	6,292	....
Notes Receivable	703	253
Mdse. Inventory	58,016	64,000
Liberty and Other Bonds	15,000	58,348
Land and Buildings	136,142	182,125
Mchry., Tools and Fixtures	41,194	37,270
Punches, Dies, Moulds	60,488	17,573
N. Y. Fur. & Fix.	1,361	1,512
Patents, Trade-Marks, etc.	40,000	20,000
Organization Expense	30,738	....
Unexpired Insurance	925	5,053
Treasury Stock — C	....	38,000
Miscellaneous	....	107
Total Assets	$528,323	$872,674

Liabilities

	1917	1918
Capital Stock — C	$102,000	$140,000
Capital Stock — P	142,635	150,000
Notes Payable	22,840	75,132
Accts. Payable	80,182	157,601
Salesman's Acct.	1,835	....
Accrued Taxes	1,640	....
Accrued Interest	475	....
Accrued Salaries	1,932	....
J. Smith	500	....
Notes Rec. (discounted)	518	....
Mt'g Payable (1 and 2)	54,500	211,280
Surplus	119,266	64,162
Reserve for Depreciation	....	48,303

Accrued Payroll		7,331
Reserve for Doubtful Accounts		555
Liability for Employees Bond Subsc.		5,275
A. Johnson, Commission		2,266
L. O. Myrtle, Commission		6,863
L. O. Myrtle, Commission		3,729
Miscellaneous		177
Total Liabilities	$528,323	$872,674

THE CONSOLIDATED BALANCE SHEET

13.

Balance sheet for the Meeker Promotion Company, December 31, 1916:

Assets	
Real Estate	$ 35,025
Building and Equipment	299,757
Stocks in Associated Co.'s	1,225,000
Notes Receivable	90,500
Accounts Receivable	14,980
Cash	124,341
Bond Discount	13,980
Deficit	100,214
	$1,903,797

Liabilities	
Capital Stock	$1,000,000
Bonds	580,000
Notes Payable	41,740
Accounts Payable	10,733
Sinking Fund Reserve	170,000
Reserve for Accrued Depreciation	80,324
Reserve for Addition to Plant	21,000
	$1,903,797

(a) Explain the meaning of each account appearing in this balance sheet.

(b) In case of dissolution how much would the stockholders receive, assuming all items valued on a realizable basis.

(c) What further information should be given with a balance sheet for a corporation of this type?

14.

The Meeker Promotion Company, whose balance sheet was given in the preceding problem, owns $1,225,000 (par value) stock of the Carter Manufacturing Company (half common and half preferred). The following is a comparative balance sheet of the Carter Manufacturing Company for the years ending December 31, 1915 and 1916:

Assets	1916	1915
Land	$ 15,200	$ 15,200
Buildings	127,599	120,224
Equipment	320,323	302,052
Bills Receivable	17,642	17,833
Accounts Receivable	39,314	8,467
Finished Goods	145,289	165,247
Raw Materials	413,602	496,452
Cash	45,763	29,153
Deficit	192,796	170,412
	$1,317,528	$1,325,040
Liabilities		
Common Stock	$ 650,000	$ 650,000
Preferred Stock	650,000	650,000
Notes Payable	10,500	18,600
Accounts Payable	7,028	6,440
	$1,317,528	$1,325,040

(a) Assuming that the accounts as shown are correct, what would be your opinion as to the solvency of the Carter Manufacturing Co.?

(b) Prepare a consolidated balance sheet for the Meeker Promotion Company and the associated company.

(c) How much would the stockholders of the Meeker Company realize in case of the dissolution of both corporations?

15.

Assuming that you have obtained the following information in regard to items appearing on the balance sheet of the Carter Manufacturing Company, prepare a new balance sheet for that company. The buildings are carried at cost, while the value (1916) was 80% of cost. The Equipment account has been charged with various renewals but no depreciation has been allowed; this property is overstated by $35,000. The finished goods were inventoried at cost price in 1915 and at selling price in 1916. The cost price is 75% of selling price. The preferred stock is 6% cumulative, and no dividends have been paid in four years.

With this additional information prepare a new consolidated balance sheet. How much would the stockholders receive now in case of dissolution?

16.

A certain holding company owns 90% of the stock of a subsidiary. The subsidiary company has an issue of $500,000 first-mortgage bonds outstanding. The assets are not sufficient to pay more than 75% of the par of the bonds, the stock being absolutely worthless. You are asked to state how the holding company should show its ownership in the subsidiary company on its balance sheet.

17.

A consolidated balance sheet for the American Telephone and Telegraph Co., as given in the Company's report for 1920, page 37, is reproduced below.

Bell System Balance Sheets, 1919 and 1920
(Duplications Excluded)

Assets

	Dec. 31, 1919	Dec. 31, 1920
Telephone Plant	$1,215,944,184	$1,363,826,327
Supplies, Tolls, etc.	38,035,034	47,442,043
Receivables	84,409,519	66,351,159
Cash	72,879,842	41,399,285
Stocks and Bonds	118,806,351	115,230,719
Total	$1,530,074,930	$1,634,249,533

Liabilities

Capital Stock	$ 512,121,868	$ 511,493,407
Mortgage Bonds	191,163,060	213,571,750
Collateral Trust Bonds	165,369,900	164,396,100
Convertible Bonds and Notes	63,983,700	80,495,900
Debentures	35,686,100	37,330,325
Three- and Five-Year Gold Notes	90,000,000	90,000,000
Bills Payable	1,774,207	10,130,141
Accounts Payable	72,158,014	73,429,492
Total Outstanding Obligations	$1,132,256,849	$1,180,847,115
Employees' Benefit Fund	9,244,081	9,363,215
Surplus and Reserves	388,574,000	444,039,203
Total	$1,530,074,930	$1,634,249,533

(a) Explain as far as possible the differences betewen items in this statement and those in the balance sheet given in Problem 8, preceding.

(b) Making use of the data given in Problem 21, Chapter XXV, and Problem 8 in this Chapter, in addition to the material presented in this problem, prepare a report covering the financial operations of this company for the year 1920.

XXVIII

STATEMENTS OF INSOLVENCY

Statement of Affairs

1.

What is meant by a statement of affairs and when is it drawn up?

2.

The following comparative balance sheet of the Rockhill Manufacturing Co. is submitted to the creditors on June 30, 1917. The company had failed to pay the interest on bonds at the last interest payment date. State your opinion as to the solvency of the concern.

General Balance Sheet,
June 30.

Assets

	1917	1916
Plant and Equipment	$1,909,881	$1,903,334
Materials and Supplies	31,391	38,881
Cash and Bills Receivable	30,785	29,941
Current Accounts	27,197	13,661
Other Assets	133,063	122,947
Deferred Debit Items	4,661	
Profit and Loss	67,839	45,796
Total	$2,204,817	$2,154,560

Liabilities

	1917	1916
Capital Stock	$ 500,000	$ 500,000
Bonded Debt	1,351,000	1,351,000

Current Liabilities	327,726	273,726
Accrued Interest	13,884	13,342
Deferred Credit Items	12,207	16,492
Total	$2,204,817	$2,154,560

3.

The bondholders (Problem 2) decide to bring insolvency proceedings. Accordingly a trustee is appointed and is directed by the court to wind up the affairs of the company. On investigation he finds the following facts:

(a) The plant and equipment will probably bring $980,000 at forced sale.

(b) Materials and supplies will bring $25,000.

(c) The amount of actual cash on hand is $15,000. The notes (bills receivable) are worth about $12,250.

(d) The uncollectible accounts amount to about $3,150.

(e) Other assets consist of supplies, etc., which will yield $75,000.

(f) The deferred assets are worthless.

(g) The bonds are secured only by a mortgage on the plant and equipment.

(h) All other liabilities are unsecured.

Draw up a statement of affairs on the basis of these facts showing approximately the amount which unsecured creditors will receive on the dollar.

4.

"The statement of affairs is in effect a balance sheet for an insolvent concern."

Comment on this statement.

Deficiency Statement

5.

Compare the deficiency statement with a statement of similar content for a going concern.

6.

Suppose that the estimates in the last problem prove correct and that the trustee's fees and expenses amount to $2,000, draw up a deficiency statement.

7.

Suppose that instead of finding a purchaser for each separate asset (problem 3) the trustee sells the business as a whole for a consideration of $1,250,000, but the trustee is to settle all outstanding liabilities. Prepare a deficiency statement assuming again that the trustee's fees and expenses amount to $2,000.

XXIX

COST ACCOUNTING

The Problems of Management

1.

Give a general statement of the field of cost accounting.

2.

State some of the specific questions concerning which the manager may desire information.

3.

Show that the ordinary financial accounts, properly classified, furnish much information of value to the manager. What figures particularly may be used (comparatively) as a rough test of efficiency?

4.

Make a list of the important classes of data that might be required from the cost accounts that are not expressed in financial terms.

5.

"Cost accounting consists in an analysis of the internal processes of production."

Does this statement cover the situation? What other data than costs are required by the manager?

6.

To what extent may cost statistics, showing unit costs of production, be used by those ultimately in control in testing the efficiency of the immediate management?

7.

Contrast *economic cost of production* and expense. Explain carefully, with illustrations, why the manager must take economic cost into consideration. Argue, however, that this fact need not involve the charging of interest or other phases of income to expense accounts.

8.

The management of a certain corporation is considering the introduction of new types of machines to replace certain older hand processes. This innovation will require an outlay of $35,000. Of this amount $10,000 is now available in the corporation's funds. It will be necessary, however, to secure new capital amounting to $25,000. The rate of return required will probably approximate 6%. To introduce these new methods will require the scrapping of property amounting to $3,000 (book value less amount in reserve). Labor cost and other expense will be reduced $3,300 for the number of units of product ordinarily produced in one year by the old system.

Will it pay the corporation, from the standpoint of the present equities, to make this innovation, assuming the average return to the capital now invested is 7%?

Is there any occasion to charge interest on the capital involved in the accounts as a cost whether the change is adopted or not?

Suppose that one department of the enterprise has already adopted the improved methods, for experimental purposes, but that all similar productive units are using the old method; should total economic cost be charged to the expense accounts of each department so that these accounts may be used for comparative purposes?

9.

Explain the difficulties involved in charging interest as a cost where several contractual equities requiring different rates of return are involved. What should be done with proprietorship capital, particularly if no rate is specified? If interest as a

cost is charged should it cover the amount invested in fixed assets only, or the value of current assets as well?

10.

What are the problems of the cost accountant in the case of an establishment or firm producing but one product? Can you give an illustration of such an enterprise? Would it be fair to say that a company producing only tin cans was making a single product? Explain fully.

11.

What are the further problems of the manager and cost accountant in the case of an enterprise producing several products? Illustrate.

12.

Show that if bond interest is included as an expense in accounting it is also proper by the same reasoning to consider preferred dividends, and even dividends on common stock, as likewise an expense.

The Classification and Distribution of Expense

13.

"The needs and purposes of the manager should determine the character of the expense classification adopted in any case." Support this statement.

14.

Give an illustrative classification of expense for some small enterprise with which you are familiar, which will, in your judgment, reveal the important facts concerning costs which the management should know.

15.

Illustrate the difficulty in concrete cases of drawing the line between direct and indirect expense.

16.

Discuss the problem of allocating indirect expense to units of product or to departments or phases of the business. Show that any such allocation is bound to be more or less arbitrary.

17.

The products of a sheep ranch are primarily mutton and wool. How is the manager going to distribute total expense between these two products? Show that many analogous problems arise in allocating expense in manufacturing and other industries.

18.

Explain the particular difficulties facing the cost accountant in the railroad industry.

19.

A certain manufacturer who was arguing in favor of fixing specific rates for a railroad on the basis of cost, used his own experience in the manufacturing business as an illustration. He explained that he was manufacturing four different articles. Prices were fixed on the basis of the cost system employed, and as proof that his costs were accurate the manufacturer submitted a statement of expenses properly apportioned on a "scientific" basis to each product. The total of the sums apportioned to the separate products equalled 100% of the total expense; therefore the costs found were accurate!

This case illustrates the careless analysis prevalent in popular conceptions of cost accounting. Discuss.

20.

Describe some of the important cost records needed by a printing company which attempts to distribute expense on the basis of the "job."

XXX

MUNICIPAL ACCOUNTING

1.

In what ways may municipal and business corporations be considered alike from the standpoint of the accountant?

2.

Contrast the main purposes for which municipal accounts are kept with those for which a business firm's accounts are kept.

The Municipal Balance Sheet

3.

State fully the purposes which can be served by the use of a municipal balance sheet.

4.

What significance may be attached to the item on the liability side of the municipal balance sheet which represents the excess of assets over liabilities? Would the term "equity," as used in Chapter II of the text, apply to this item?

5.

"It is impossible to prepare a balance sheet for a city. How can a money value be placed on such improvements as parks, health laboratories and other equipment used for improving the moral and physical condition of the community? These have a value far in excess of their cost to the city." Could you agree with the thought expressed in the third sentence of the above quotation and disagree with the first? Explain fully.

6.

What steps would have to be taken to prepare the first balance sheet for a city?

7.

"The presence of a deficit item on a municipal balance sheet at any time would not lead to such serious difficulties as would be likely to ensue in the case of a corporation whose balance sheet showed a similar item. Furthermore, a city's statement might show a deficit at a particular time without reflecting discredit upon the city administration. But if such an item continued to exist from year to year it would indicate a short-sighted policy on the part of the municipality."

Explain what is meant and support.

8.

In 1915 the party in control of the municipal offices in a small city attempts to re-elect its officers on the basis of a claim for efficient management of municipal finances. A reduced tax rate is urged as one indication of this efficiency. An accountant, employed by the opposition party, presents the following comparative balance sheet (in summary form) as a refutation of this claim:

City of Langley

Fixed Assets	$1,750,000	$1,885,000
Current Assets	55,000	8,500
	$1,805,000	$1,893,500
Bonded Debt	$1,500,000	$1,650,000
Current Debt	200,000	225,000
Surplus	105,000	28,500
	$1,805,000	$1,893,500

What bearing does this statement have upon a reduction of the tax rate and the general contention of the party in power? Explain fully.

The Municipal Income Sheet

9.

Explain why an income sheet is of more importance to a city than a statement of receipts and disbursements for the same period.

10.

Outline a model form of income sheet which could be used by a small city.

11.

"Cost accounts have practically as important a function in the modern municipality as in the private business organization." Explain why this is true.

12.

It is essential that a city submit a special income sheet for each commercial service performed. These sheets can be used for comparative purposes in disputes concerning the relative merits of municipal and private ownership from the standpoint of operating efficiency.

Show how the income sheets may be used for this purpose.

13.

What relative importance do you attach to the operating and net revenue divisions of the municipal income sheet?

14.

The city of Medville owns its own water and electric light plants. The estimated cost of the water used for fire protection in 1916 is $5,200; for the city hall, $175; for public parks, $585. The estimated cost of electricity used for street lighting is $10,500; for the city hall $120; for special park lighting, $150.

Give the journal entries you would make covering the above, and explain the effect of each entry on the income sheet for each department of the city.

15.

A city which owns and operates its own water and electric light plants, uses the same power plant for both. What accounts should be kept to properly charge each department with its share of the cost of producing power?

The Municipal Budget

16.

Explain the nature and function of a budget as applied to municipal finances.

17.

Outline a model form for a municipal budget showing which accounting statements are used for making estimates.

18.

How may a budget program be used as an aid to the citizens in controlling the acts of city officials?

19.

A city orders a street paved. The contract cost is $75,000. Bonds bearing 5% interest, and maturing in 10 years, are issued at par to meet the payment. It is planned to charge the abutting property owners with the whole cost of the improvement, the assessments to be made in ten equal installments. Give the entries that you would make on the city's books at: the time the bonds are issued; when the payment is made to the contractor; and at the collection of the first two assessments, assuming that the double-entry system of bookkeeping is used. What special ledgers and controlling accounts would be necessary?

XXXI

RAILROAD ACCOUNTING

1.

What situation has given rise to the present emphasis upon public utility accounting?

The I. C. C. Classifications

2.

Give examples of some of the accounts in the I. C. C. classification, "Investment in Road and Equipment." What is the purpose of this classification?

3.

Explain the situation which has made the present railway balance sheet figures for the fixed assets of mainly nominal significance.

4.

A railroad company removes old rails with a book value (less the credits to the reserve) of $2,500. Salvage value amounts to but $1,200. What journal entries should be made?

The cost of the above rails (and the book value before deducting the amount in reserve) is, we will suppose, $5,000. These rails are of the seventy-pound type. The present cost of the same number of similar rails is $6,000. New rails (ninety-pound type) which cost $8,000 are laid to replace the old. Give the entries which would be made covering this replacement according to the rules of the I. C. C. Commission. What is now the amount of property appearing in the in the Rails account as far as the items mentioned are concerned? Do you agree with this procedure? Explain fully.

5.

Why is it an error in accounting principle to charge bond discount to a profit and loss (or surplus) account?

6.

Name the several groups of accounts found on the prescribed railway balance sheet? Interpret each of these groups. Can you suggest a more logical arrangement?

7.

In a railway income statement you find listed among "deductions from gross income" the following items:

Hire of equipment;
Rent for leased roads;
Interest on funded debt;
Interest on unfunded debt;
Loss from operation of leased roads.

Are these all congruous items? Explain fully.

8.

What are the main groups of accounts in the Expense and Revenue classifications? Explain the meaning of each of the main divisions used.

9.

Study the railway statements presented in Appendix C of the text (pp. 668-674). Explain the significance of each of the main classes in each statement.

Rate Regulation and Accounting

10.

Discuss the relation between rate regulation and the importance of sound accounting practice. Why is it less important that the accounts reflect the value of the assets used in the case of the competitive than the public-utility enterprise?

11.

Discuss the relative merits of *original cost* and *present value* as bases for measuring the values of the assets of public utilities.

12.

Show that *present value* requires the recognition of both appreciation and depreciation. Does a property at 100% efficiency necessarily represent 100% of the investment? Explain fully.

13.

Is there need for quite different accounting principles in the public utility field as compared with competitive industry?

XXXII

AUDITING

The Purposes of Audits

1.

What do you understand by an *audit* and auditing?

2.

What are the general purposes of audits?

3.

Give several examples of specific inquiries which give rise to audits.

4.

Illustrate the fact that government regulation leads to many examinations of accounting records. Do you suppose the passage of the corporation income tax increased the work of auditors? Will the present "excess-profit" and similar taxes have any effect on such work?

5.

Would you expect disputes between employers and labor unions over wage contracts to give rise to "audits" of any kind? Explain.

6.

Give several illustrations of situations which might give rise to demands for audits by parties in no way financially interested in the enterprise involved in any case.

The Essentials of Auditing

7.

Illustrate the fact that the verification of clerical accuracy does not prove that sound accounting principles have been observed. Does the fact that debits equal credits prove that no misappropriations have been made? What conclusion can you draw as to the point of emphasis for the auditor?

8.

Name the essential qualifications of an auditor.

9.

A shortage is suspected in funds under the control of a municipal officer. You are called to examine the books. You find all journal entries correctly posted, and you take off a trial balance which "proves." Just what does this indicate? Does it prove that there have been no defalcations? Explain.

10.

In auditing the books of a company you find that a very insignificant allowance has been made for depreciation of buildings. In all other respects the books are correct and sound accounting principles have been observed. In preparing statements and making your report as to the financial condition of the company would you raise this point, and if so, in what way? Would you feel called upon, as an auditor, to make a valuation of the buildings? Is the valuation of assets ever a part of the auditor's work? Discuss fully.

11.

You are called in by an officer of a small concern to prepare an income sheet for tax-report purposes. The books have not been kept by complete double-entry. Accounts are kept in which

are recorded all merchandise and other assets purchased. A list of all notes and accounts payable is available. The Cash account shows a record of all receipts and disbursements. Cards are available showing the status of each customer. No proprietorship accounts are kept.

State how you would proceed in preparing the statement required.

12.

What is the best general guide for the auditor in formulating valuation rules in a particular case, or in any other phase of his work?